TOSHIBA

FILE NO. 020-200423
REVISION 2

SERVICE MANUAL

Projection Television

52HMX94
62HMX94

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CIRCUIT DIAGRAM

CHAPTER 1 GENERAL ADJUSTMENTS

SAFETY INSTRUCTIONS

SAFETY PRECAUTION

WARNING: Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. When replacing a chassis in the cabinet, always be certain that all the prospective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety character istics as specified in the parts list may create shock, fire, or other hazards.

SERVICE MODE

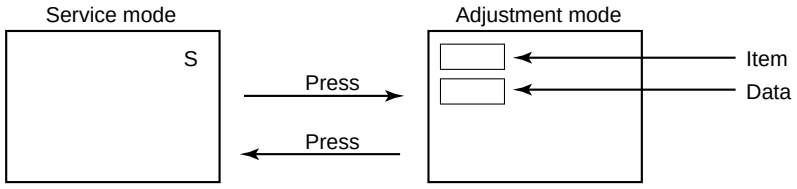
1. ENTERING SERVICE MODE

1) Press MUTE button twice on Remote Control.
2) Press MUTE button again and keep pressing.
3) While pressing the MUTE button, press MENU button on TV set.

(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-1 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 8)

4. ADJUSTING THE DATA

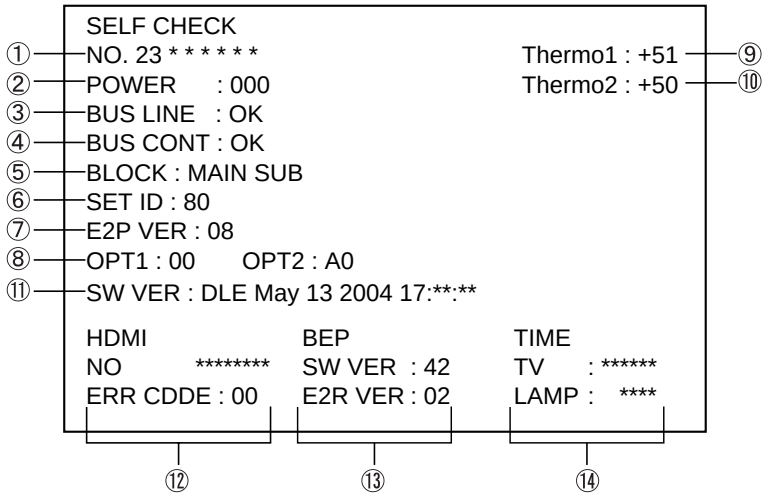
1) Pressing of VOLUME ▲ or ▼ button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

5. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

6. SELF DIAGNOSTIC FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC’s is executed properly.
2) During diagnosis, the following displays are shown.



① Part number of microprocessor (IC609)
② Operation number of protection circuit (The number of times of the power supply OFF by fan stop) . . . . “000” is normal.
③ BUS line check
- “OK” ..... Normal
- “SCL-GND” or “NG” ..... SCL-GND short circuit
- “SDA-GND” or “NG” ..... SDA-GND short circuit
- “SCL-SDA” or “NG” ..... SCL-SDA short circuit

④ BUS line ACK (acknowledge) check
- “OK” ..... Normal

⑤ Sync. signal check
- Green display ..... Normal
- Red display ..... NG

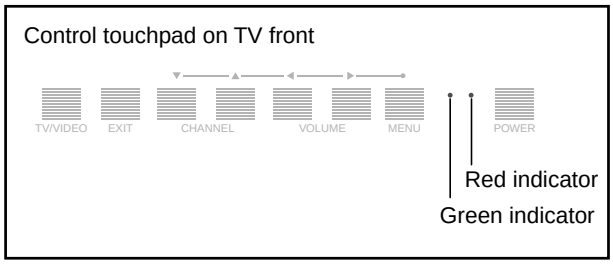
  MAIN ..... Main sync
  SUB ..... Sub sync (when turn on the PIP)

⑥ ID code for TV Set
⑦ Version of "EEP"
⑧ Data for "OPT"
⑨ Temperature of DMD
⑩ Temperature of the color wheel neighborhood
⑪ Software version history
⑫ HDMI Software
   NO ***** .....Serial No.
   ERR CODE .....Error Code
⑬ BEP Software Version
   SW VER : **.....Version
   E2P VER : ** EEP ROM Version
⑭ Use time
   TV .....TV set on time (hour)
   LAMP.....LAMP set on time (hour)
   (It may shift from TV set on time.)

7. LED indications

The green and red LED lights on the TV control touchpad (on the lower right corner of the TV screen) indicate the TV's current status, as follows:

- Green ON = Control touchpad being pressed.
- Red ON = Power ON.
- Green and/or Red blinking
  (see table below for condition and solution).



	LED Indication	Condition	Solution
1	Red and Green turn off.	Power supply OFF. (AC)	
2	Red and Green turn off.	Power supply OFF. (Standby) (North America)	
3	Red light solid and Green off.	Power supply ON.	
4	Red and Green lights solid.	Touched the touchpad	
5	Green blinks at 1-second intervals; Red off.	Lamp LPS mode	
6	Green blinks at 0.3-second intervals; Red lights solid.	The lamp is not working properly.	The TV automatically will try to reset itself three times.
7	Green lights solid and Red blinks at 0.5-second intervals.	The lamp unit door is not seated properly. (U)	Turn the POWER OFF and unplug the power cord. Review “How to replace the lamp unit” on pages 8-10 to ensure that the lamp unit door is installed securely.
8	Green and Red blink at 1-second intervals.	The lamp is not working properly after the third automatic reset (see item #7). (U)	Turn the POWER OFF and then ON again. If the problem persists, replace the lamp unit (see pages 8-10).
9	Red blinks at 0.5-second intervals; Green off.	FAN (Light engine unit) has stopped.	• Is the output voltage of the supply voltage regulator for the FAN in the power circuit normal? • Has dust accumulated in the FAN? → If the output voltage is not abnormal, replace the faulty FAN with a new one.
10	Red blinks at 1-second intervals; Green off.	BUS line is damaged	• Check the faulty device through the self diagnostics function under SERVICE mode. • Does BUS line (SCL, SDA) work normally? → If the BUS line is under abnormal conditions, replace the faulty device with a new one.
11	Red blinks three times; Green off.	The collar wheel has stopped.	• Is the output voltage of the power supply circuit normal? → If the output voltage is normal, replace the engine with a new one.
12	Red and Green blink three times.	Temperature rises abnormally.	• Is the ventilating hole in the set (exhaust slot on the rear) blocked or covered? • Is FAN rotating normally? • Has dust accumulated in the ventilating hole? → If no abnormally conditions are found, replace the engine with a new one.

(U) is restoration by the user.

CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA

【SERVICE MODE】

ADJUSTING ITEMS AND DATA IN THE SERVICE MODE:

Item	Name of adjustment	Preset	Data
RCUT	R CUT OFF	80H	←
GCUT	G CUTOFF	80H	←
BCUT	B CUT OFF	80H	←
GDRV	G DRIVE	40H	←
BDRV	B DRIVE	40H	←
BRTC	BRIGHT CENTER	80H	←
SCNT	SUB CONTRAST FOR TV	10H	←
COLC	COLOR CENTER	4BH	←
UVTT	BASE BAND TINT	43H	←
CNTX	SUB CONTRAST MAX	7FH	←
HPOS	H-POSITION (PAL/DFS)	00H	←
HPOS(PJ ONLY)	56P CONVERGENCE OSD PATTERN HPOS	02H	←
VPOS(PJ ONLY)	56P CONVERGENCE OSD PATTERN VPOS	F2J	←
CWDH	COLOR WHEEL DELAY (HIGH)	00H	←
CWDL	COLOR WHEEL DELAY (LOW)	FAH	←
DMDB	DMD BIAS	03H	←
OPT0	TV SET OPTION 1	04H	84H
OPT1	TV SET OPTION 2	A0H	B0H
TVOP	TV OPTION	40H	←
PLLW0	PLL WAIT TIME	14H	←
PLLW1	PLL WAIT TIME	03H	←
PLLW2	PLL WAIT TIME	0FH	←
PLLW3	PLL WAIT TIME	05H	←
PLLW4	PLL WAIT TIME	14H	←
PLLW5	PLL WAIT TIME	04H	←
V01	VOLUME (DATA)	23H	←
V25	VOLUME (DATA)	4AH	←
V50	VOLUME (DATA)	63H	←
V75	VOLUME (DATA)	6FH	←
V100	VOLUME (DATA)	73H	←
MODH	MODUS DATA HIGH	20H	←
MODL	MODUS DATA LOW	91H	←
PRES	FMAM PRESCALE	24H	←
SCTH	VOLUME SCART OPTION HIGH	73H	←
SCTL	VOLUME SCART OPTION LOW	01H	←

Table-1

Note:

The image system data of RCUT-CNTX is different by each image format.

The NTSC value is indicated in the table.

LAMP UNIT REPLACEMENT

Cautions when replacing LAMP UNIT (SK02)

The light source for this TV is a mercury lamp with internal atmospheric pressure that increases during use. The lamp has a limited service life that varies depending on user settings. If you use the lamp beyond its service life:

- you may notice a reduction in the colors and/or brightness of the picture; and
- the strength of the quartz glass in the lamp will be reduced and the lamp may rupture (often making a loud noise when this happens). If the lamp reputres, the TV will not operate until the lamp unit is replaced.

Note: The lamp unit is designed so broken lamp glass remains securely inside the lamp unit.

CAUTION: Always handle the lamp unit with care.
The lamp unit in this TV was designed for safe replacement by consumers; however, if the lamp unit is subjected to intentional abuse (such as excessive mechanical abuse or handling by children or pets), the unit may break, exposing edges or pinch points.

When to replace the lamp unit

You should replace the lamp unit:

- if the picture darkens and/or colors fade;
- if the lamp does not light; or
- If you hear a loud noise and the picture goes black, which may indicate a lamp rupture (LED indication #8). See LED indications on page 6.

1. Turn off the TV and unplug the power cord.

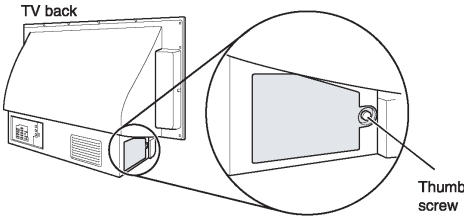
WARNING: Eye damage may result from directly viewing the light produced by this lamp. Always turn off the TV and unplug the power cord before opening the lamp unit door.

2. STOP! Allow the lamp to cool for at least one (1) hour before replacing it.

CAUTION: HOT SURFACE

The temperature of the lamp immediately after use exceeds 392 F (200 C). Touching the lamp at this temperature will result in injury. **ALLOW THE LAMP TO COOL FOR AT LEAST ONE (1) HOUR BEFORE REPLACING IT.**

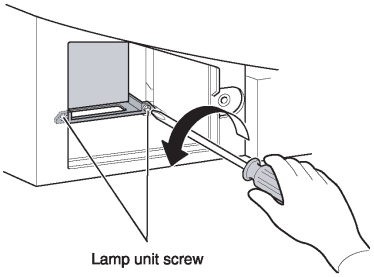
3. On the back of the TV, loosen the thumb screw (by hand) on the lamp unit door, and then remove the lamp unit door.



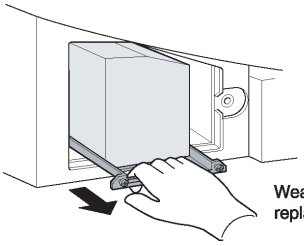
Lamp unit door detail

WARNING: The lamp unit door is provided with an interlock to reduce the risk of electric shock and excessive ultraviolet radiation. **Never defeat its purpose or attempt to service without removing the lamp unit door completely.** Failure to follow this WARNING may result in death or serious injury.

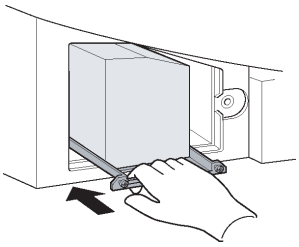
4. Using a manual screwdriver, loosen two screws on the lamp unit.


Lamp unit screw

5. Grasp the lamp unit handle and gently pull the lamp unit straight out of the TV. Set the old lamp unit aside.


Wear gloves when replacing the lamp unit

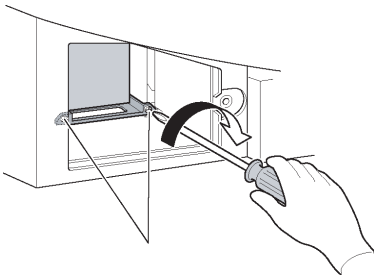
6. Carefully insert the new lamp unit straight into the TV until it is fully seated.



Note :

- Never subject the lamp unit to excessive shock.
- Never touch the lamp unit glass or otherwise get it dirty.
- Doing so may affect the image quality and reduce the service life of the lamp. See “Cleaning the lamp unit glass” below.

7. Using a manual screwdriver, tighten two lamp unit screws.
Note:Hand-tighten only. Do not use an electric screwdriver.

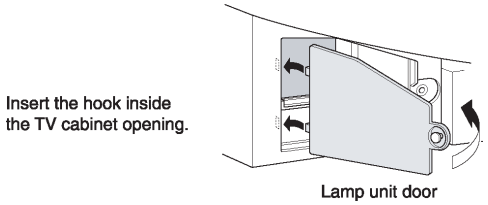

Lamp unit screw
(hand-tighten only)

Cleaning the lamp unit glass

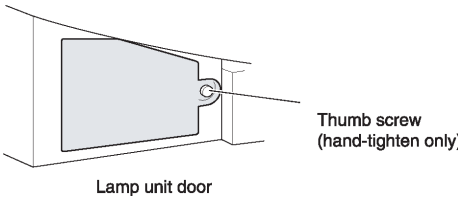
If you accidentally touch the lamp unit glass or otherwise get it dirty, wipe it with a lint-free lens cleaning cloth (such as a cloth for cleaning camera lenses or eyeglasses).

CAUTION: NEVER clean a hot lamp with any type of flammable liquid or aerosol cleaning agent. Many ordinary cleaning agents (such as glass cleaners) contain chemicals that may be flammable at certain temperatures. If the lamp unit is not allowed to cool for at least one (1) hour, such chemicals may ignite.

8. Reattach the lamp unit door, making sure to insert the hook on the left side of the lamp unit door inside the opening in the TV cabinet.



9. Replace the thumb screw and hand-tighten.



NOTE: Make sure the lamp unit and screw are installed securely; otherwise, the TV may not turn on and the lamp life may be shortened.

10. Plug in the power cord and turn on the TV. After the initial warmup period (which may take up to 45 seconds for full picture brightness), the TV should operate normally. If any of the following conditions exist, turn off the TV, unplug the power cord, and repeat steps 1-9 to ensure that the lamp unit and lamp unit door are installed correctly:
    - No picture
    - Dark picture
    - TV will not turn on

LIGHT ENGINE REPLACEMENT

Cautions when replacing LIGHT ENGINE

LIGHT ENGINE UNIT:

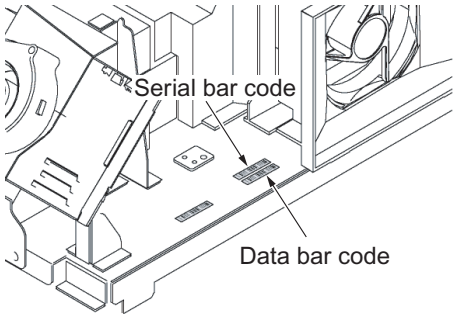
A271: PJ-TB25-52/62 (Including with SK02 to SK08)

SK01: PJ-TB-25-52S/62S
(Including with SK03 to SK08 except SK02)

- LIGHT ENGINE is a heart of the TV and emits high heat. Make sure to replace it after turning off the TV and wait for sufficient cool down. (More than one hour is recommended.)
- Do not impact during replacement; otherwise, some parts may be damaged.
- Do not touch optical lens. Adhesion of dirt may deteriorate its performance.
- Do not loosen any screw other than those to be removed for adjustment or replacement.
- LIGHT ENGINE emits ultraviolet rays when the TV is ON. Make sure to be careful.

1. Replacement of Light Engine Unit

1-1. When Light Engine Unit is replaced with a new one, adjustment is required. Adjusted values are described in bar code, and the values of bar code must be converted to the adjusted values for the setup. There are 2 types of bar code.



Serial bar code

Ex. 52A000A111111

Inch size / Serial numbers

Data bar code (CW: color wheel)

Ex. A111111B1111

CWdelay number: 4digits

DMD bias value

Substrate serial numbers

1-2. Adjustment is made from service mode. The adjusting items consist of CWDL, CWDH and DMDB.

CWDL CWDH

When CW delay number of the data bar code is 0450:

0450 indicates ⇒ 450 ⇒ 45.0
Double 45.0 to form hexadecimal number (HEX).

45.0 x 2=90 ⇒ 5A (hexadecimal)
The adjusted value becomes “5A” for CWDL and “00” for CWDH.
If hexadecimal number forms 3 or 4 digits, the latter 2 digits indicate CWDL while the first 2 digits indicate CWDH.
(For 3 digits, CWDH=0*)

Note:
For converting decimal number to hexadecimal number, see the conversion table on the next page.

DMDB

Read DMD bias value described in alphabet from the data bar code. In service mode, DMDB value is converted and fixed by the following table.

DMD value in bar code	Adjusted value (Hex)
B	00
C	01
D	02
E	03
F	04

Refer to Service Mode for adjusting the service mode.

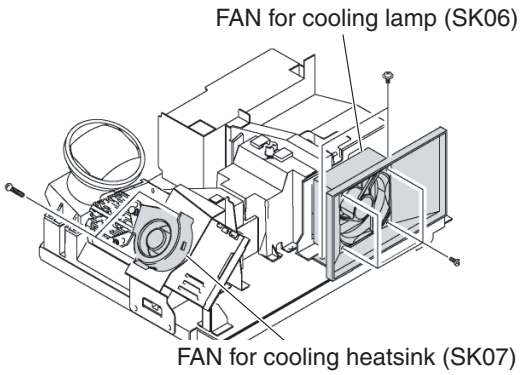
Conversion Table for Decimal and Hexadecimal Numbers

CW delay number	CWDH	CWDL
0000	00	00
0005	00	01
0010	00	02
0015	00	03
0020	00	04
0025	00	05
0030	00	06
0035	00	07
0040	00	08
0045	00	09
0050	00	0A
0055	00	0B
0060	00	0C
0065	00	0D
0070	00	0E
0075	00	0F
0080	00	10
0085	00	11
0090	00	12
0095	00	13
0100	00	14
0105	00	15
0110	00	16
0115	00	17
0120	00	18
0125	00	19
0130	00	1A
0135	00	1B
0140	00	1C
0145	00	1D
0150	00	1E
0155	00	1F
0160	00	20
0165	00	21
0170	00	22
0175	00	23
0180	00	24
0185	00	25
0190	00	26
0195	00	27
0200	00	28
0205	00	29
0210	00	2A
0215	00	2B
0220	00	2C
0225	00	2D
0230	00	2E
0235	00	2F
0240	00	30
0245	00	31
0250	00	32
0255	00	33
0260	00	34
0265	00	35
0270	00	36
0275	00	37
0280	00	38
0285	00	39
0290	00	3A
0295	00	3B
0300	00	3C
0305	00	3D
0310	00	3E
0315	00	3F
0320	00	40
0325	00	41
0330	00	42
0335	00	43
0340	00	44
0345	00	45
0350	00	46
0355	00	47
0360	00	48
0365	00	49
0370	00	4A
0375	00	4B
0380	00	4C
0385	00	4D
0390	00	4E
0395	00	4F
0400	00	50
0405	00	51
0410	00	52
0415	00	53
0420	00	54
0425	00	55
0430	00	56
0435	00	57
0440	00	58
0445	00	59
0450	00	5A
0455	00	5B
0460	00	5C
0465	00	5D
0470	00	5E
0475	00	5F
0480	00	60
0485	00	61
0490	00	62
0495	00	63
0500	00	64
0505	00	65
0510	00	66
0515	00	67
0520	00	68
0525	00	69
0530	00	6A
0535	00	6B
0540	00	6C
0545	00	6D
0550	00	6E
0555	00	6F
0560	00	70
0565	00	71
0570	00	72
0575	00	73
0580	00	74
0585	00	75
0590	00	76
0595	00	77
0600	00	78
0605	00	79
0610	00	7A
0615	00	7B
0620	00	7C
0625	00	7D
0630	00	7E
0635	00	7F
0640	00	80
0645	00	81
0650	00	82
0655	00	83
0660	00	84
0665	00	85
0670	00	86
0675	00	87
0680	00	88
0685	00	89
0690	00	8A
0695	00	8B
0700	00	8C
0705	00	8D
0710	00	8E
0715	00	8F
0720	00	90
0725	00	91
0730	00	92
0735	00	93
0740	00	94
0745	00	95
0750	00	96
0755	00	97
0760	00	98
0765	00	99
0770	00	9A
0775	00	9B
0780	00	9C
0785	00	9D
0790	00	9E
0795	00	9F
0800	00	A0
0805	00	A1
0810	00	A2
0815	00	A3
0820	00	A4
0825	00	A5
0830	00	A6
0835	00	A7
0840	00	A8
0845	00	A9
0850	00	AA
0855	00	AB
0860	00	AC
0865	00	AD
0870	00	AE
0875	00	AF
0880	00	B0
0885	00	B1
0890	00	B2
0895	00	B3
0900	00	B4
0905	00	B5
0910	00	B6
0915	00	B7
0920	00	B8
0925	00	B9
0930	00	BA
0935	00	BB
0940	00	BC
0945	00	BD
0950	00	BE
0955	00	BF
0960	00	C0
0965	00	C1
0970	00	C2
0975	00	C3
0980	00	C4
0985	00	C5
0990	00	C6
0995	00	C7
1000	00	C8
1005	00	C9
1010	00	CA
1015	00	CB
1020	00	CC
1025	00	CD
1030	00	CE
1035	00	CF
1040	00	D0
1045	00	D1
1050	00	D2
1055	00	D3
1060	00	D4
1065	00	D5
1070	00	D6
1075	00	D7
1080	00	D8
1085	00	D9
1090	00	DA
1095	00	DB
1100	00	DC
1105	00	DD
1110	00	DE
1115	00	DF
1120	00	E0
1125	00	E1
1130	00	E2
1135	00	E3
1140	00	E4
1145	00	E5
1150	00	E6
1155	00	E7
1160	00	E8
1165	00	E9
1170	00	EA
1175	00	EB
1180	00	EC
1185	00	ED
1190	00	EE
1195	00	EF
1200	00	F0
1205	00	F1
1210	00	F2
1215	00	F3
1220	00	F4
1225	00	F5
1230	00	F6
1235	00	F7
1240	00	F8
1245	00	F9
1250	00	FA
1255	00	FB
1260	00	FC
1265	00	FD
1270	00	FE
1275	00	FF
1280	01	00
1285	01	01
1290	01	02
1295	01	03
1300	01	04
1305	01	05
1310	01	06
1315	01	07
1320	01	08
1325	01	09
1330	01	0A
1335	01	0B
1340	01	0C
1345	01	0D
1350	01	0E
1355	01	0F
1360	01	10
1365	01	11
1370	01	12
1375	01	13
1380	01	14
1385	01	15
1390	01	16
1395	01	17
1400	01	18
1405	01	19
1410	01	1A
1415	01	1B
1420	01	1C
1425	01	1D
1430	01	1E
1435	01	1F
1440	01	20
1445	01	21
1450	01	22
1455	01	23
1460	01	24
1465	01	25
1470	01	26
1475	01	27
1480	01	28
1485	01	29
1490	01	2A
1495	01	2B
1500	01	2C
1505	01	2D
1510	01	2E
1515	01	2F
1520	01	30
1525	01	31
1530	01	32
1535	01	33
1540	01	34
1545	01	35
1550	01	36
1555	01	37
1560	01	38
1565	01	39
1570	01	3A
1575	01	3B
1580	01	3C
1585	01	3D
1590	01	3E
1595	01	3F
1600	01	40
1605	01	41
1610	01	42
1615	01	43
1620	01	44
1625	01	45
1630	01	46
1635	01	47
1640	01	48
1645	01	49
1650	01	4A
1655	01	4B
1660	01	4C
1665	01	4D
1670	01	4E
1675	01	4F
1680	01	50
1685	01	51
1690	01	52
1695	01	53
1700	01	54
1705	01	55
1710	01	56
1715	01	57
1720	01	58
1725	01	59
1730	01	5A
1735	01	5B
1740	01	5C
1745	01	5D
1750	01	5E
1755	01	5F
1760	01	60
1765	01	61
1770	01	62
1775	01	63
1780	01	64
1785	01	65
1790	01	66
1795	01	67

PARTS REPLACEMENT IN LIGHT ENGINE

1 FAN Replacement (SK06 and SK07)

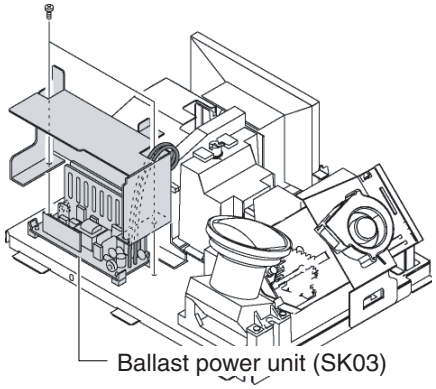
1-1. For replacing FAN for cooling heatsink (SK07), remove 2 screws.
For replacing FAN for cooling lamp (SK06), detach FAN hood located on LIGHT ENGINE by removing 2 screws and then remove 4 screws.



2. Replacement of Ballast Power Unit (SK03)

2-1. Remove lamp unit by loosening 2 screws.
(Refer to pages 8 to 10)

2-2. Remove 2 screws holding chassis of ballast power unit (SK03) to detach the chassis.
Note:
Treat with enough care so as not to damage the cable for lamp power.

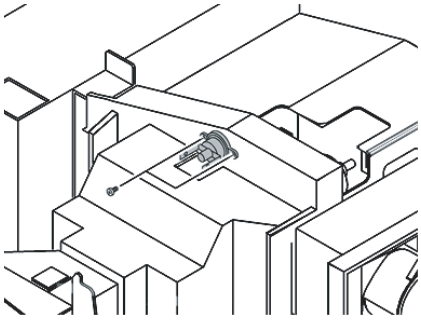


2-3. Detach the ballast power unit by removing 4 substrate stoppers that hold the ballast power unit.

CAUTION
Precautions When Exchanging Ballast Power Units
When you install a new ballast power unit, install it while pushing the four corners of the board directly. Installation while pressing the heatsink may cause the pattern crack.

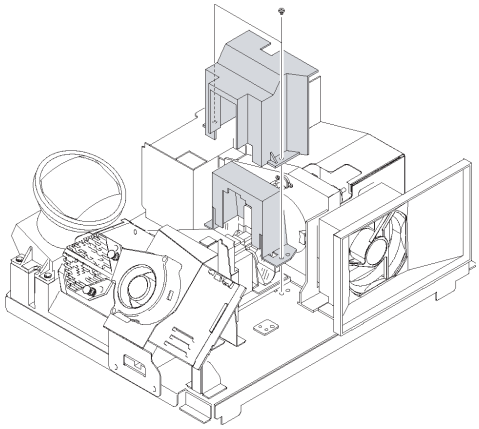
3. Replacement of Temperature Breaker (SK08)

3-1. Remove 2 screws for replacing the temperature breaker (SK08) for lamp.

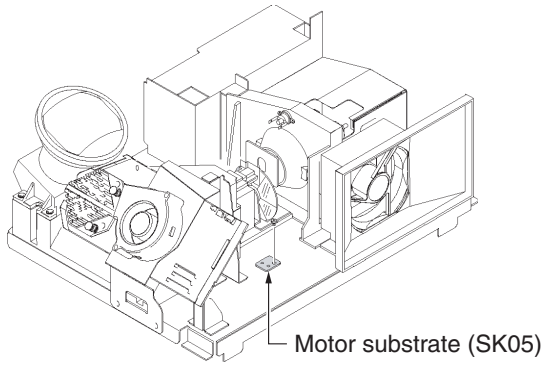


4 Replacement of Sensor Unit (Photo Detector Substrate) (SK04) & Motor Unit (Motor Substrate) (SK05)

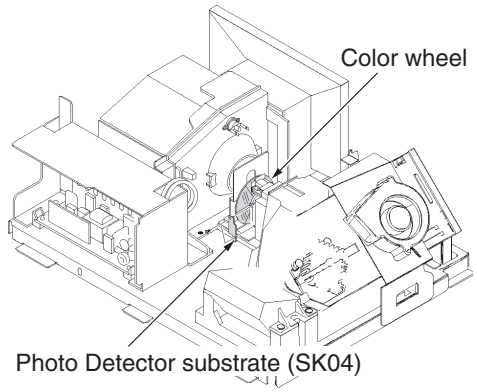
4-1. Remove 2 screws fixing a color wheel cover and UV filter box.



4-2. Remove one screw for Motor Substrate (SK05).



4-3. Remove 2 screws holding Photo Detector substrate (SK04).



Caution
- When removing screws, do not damage the color wheel with drivers, etc. Even a small impact may damage the color wheel.
- Make sure not to touch the color wheel.
- Don't remove other screws by any means.

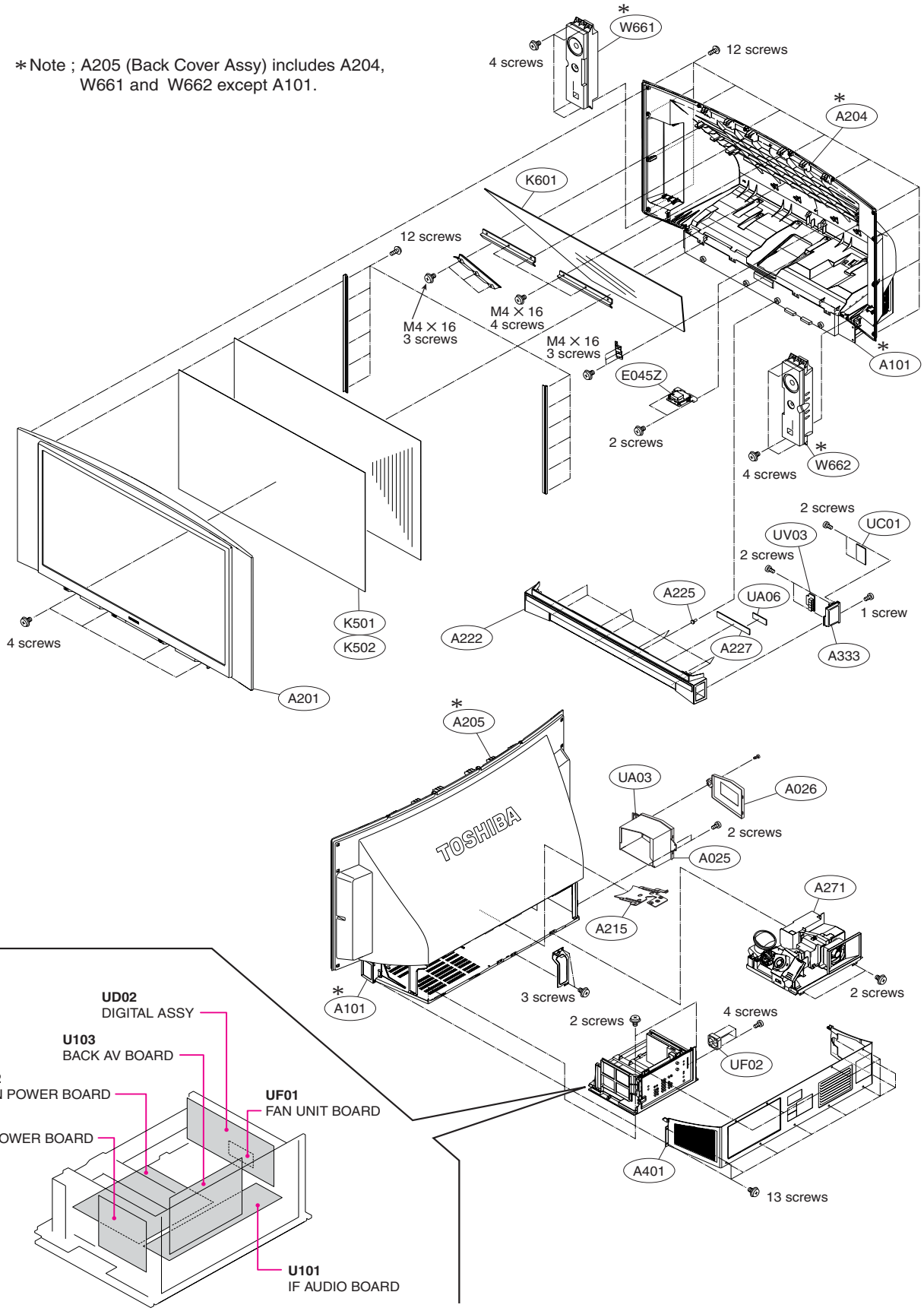
5. LIGHT ENGINE UNIT

Location No.		Parts No.	Description
⚠ A271	#1	23405372	OPTICAL ENGINE, PJ-TB25-52 (Incl. SK02-SK08)
	#2	23405379	OPTICAL ENGINE, PJ-TB25-62 (Incl. SK02-SK08)
SK01	#1	23405385	OPTICALENGINE, PJ-TB25-52S (Incl.SK03-SK08)
	#2	23405386	OPTICALENGINE, PJ-TB25-62S (Incl.SK03-SK08)
SK02		23587201	SERVICE KIT, SHP66 LAMP UNIT
SK03		23122468	P0WER UNIT, RPB-4434ZA RPB-4434ZA
SK04		23762354	PC BOARD ASSY, SENSOR UNIT PD1823 SENSOR UNIT
SK05		23762355	PC BOARD ASSY, MOTOR UNIT PD1824 MTR UNIT
SK06		23125920	FAN, D09A-12PS6 01B(K)
SK07		23125919	FAN, D07F-12SS18 01B(EX)
SK08		23144199	BREAKER, US-603UXTLQE-H US-603UXTLQE-H

#1:[52HMX94] #2:[62HMX94]

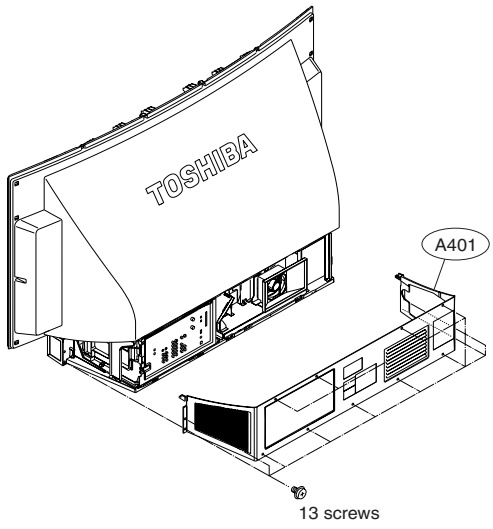
EXPLODED VIEW

∗Note ; A205 (Back Cover Assy) includes A204, W661 and W662 except A101.

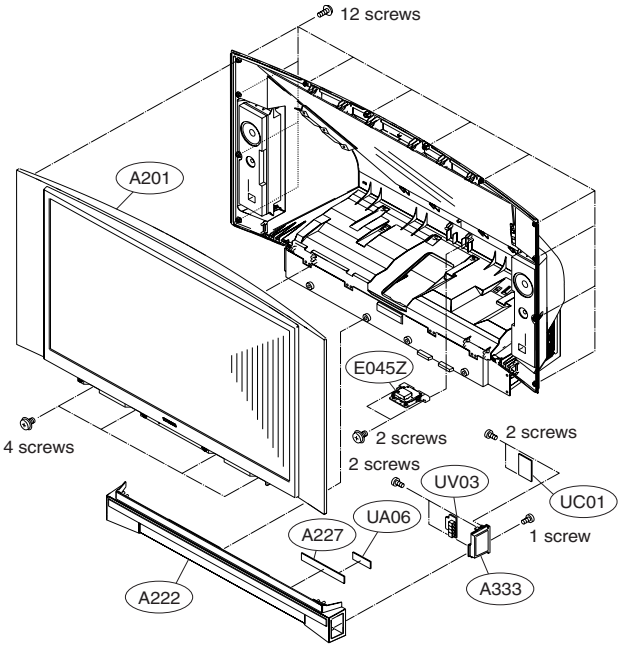


MECHANICAL DISASSEMBLY

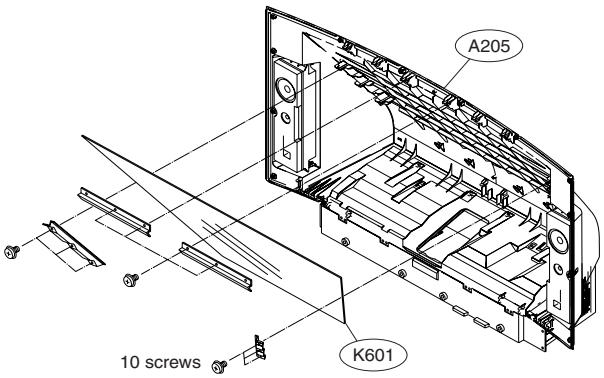
1. Rear Cover Removal



2. Touchpad & Bezel Ass'y Removal

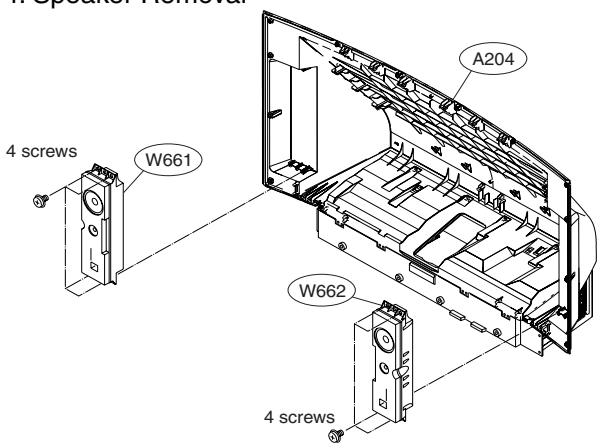


3. Mirror Removal

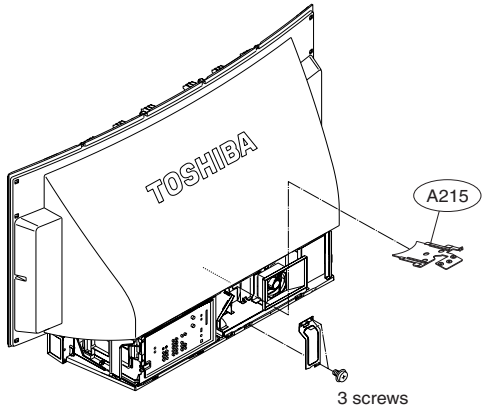


Note ; A205 includes A204, W661 and W662.

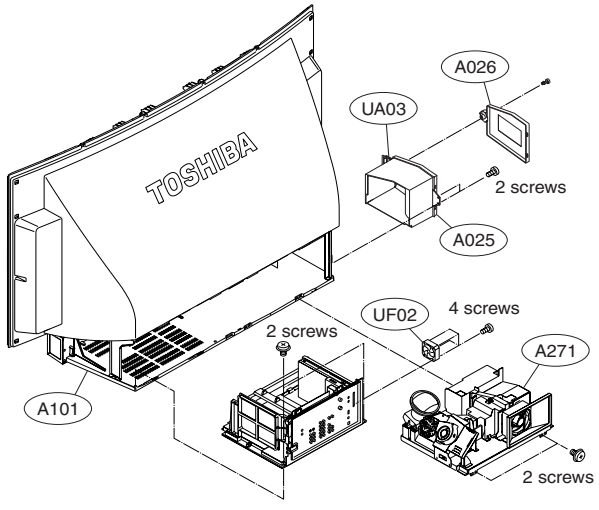
4. Speaker Removal



5. Bracket Removal



6. Optical Engine Removal



CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:
- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

Model : 52HMX94/62HMX94

Capacitors	CD	:	Ceramic Disk	PF	:	Plastic Film	EL	: Electrolytic
Resistors	CF	:	Carbon Film	CC	:	Carbon Composition	MF	: Metal Film
	OMF	:	Oxide Metal Film	VR	:	Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
#1:[52HMX94]		
#2:[62HMX94]		
CAPACITORS		
C101	24797339	ELECTROLYTIO CE04G, 50V 3.3UF M
C102	24665221	ELECTROLYTIC, 10V 220UF M 3A
C105	24100102	CERAMIC CHIP, 50V F 1000PF Z
C106	24669479	ELECTROLYTIC, 50V 4.7UF M 3A
C107	24666221	ELECTROLYTIC 04Q, 16V 220UF M 3A
C108	24665221	ELECTROLYTIC, 10V 220UF M 3A
C109	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C110	24794101	ELECTROLYTIC, 16V 100UF M
C502	24092730	CERAMIC CHIP, 16V B 0.1UF K
C508	24092730	CERAMIC CHIP, 16V B 0.1UF K
C515	24092730	CERAMIC CHIP, 16V B 0.1UF K
C516	24109103	CERAMIC CHIP, 50V B 0.01UF K
C517	24092731	CERAMIC CHIP, 16V B 1UF K
C524	24092730	CERAMIC CHIP, 16V B 0.1UF K
C538	24630727	ELECTROLYTIC, 6.3V 330UF M 7L 3A
C582	24105101	CERAMIC CHIP, 50V CH 100PF J
C601	24109122	CERAMIC CHIP, 50V B 1200PF K
C602	24109122	CERAMIC CHIP, 50V B 1200PF K
C603	24073084	ELECTROLYTIC, 50V 4.7UF M 3A
C604	24073084	ELECTROLYTIC, 50V 4.7UF M 3A
C605	24073086	ELECTROLYTIC, 50V 10UF M 3A
C606	24073086	ELECTROLYTIC, 50V 10UF M 3A
C607	24073053	ELECTROLYTIC, 25V 100UF M 3A
C608	24073086	ELECTROLYTIC, 50V 10UF M 3A
C612	24073054	ELECTROLYTIC CE04P 25V 220UF M 3A
C621	24109822	CERAMIC CHIP, 50V B 8200PF K
C622	24109822	CERAMIC CHIP, 50V B 8200PF K
C661	24073084	ELECTROLYTIC, 50V 4.7UF M 3A
C662	24073086	ELECTROLYTIC, 50V 10UF M 3A
C663	24073086	ELECTROLYTIC, 50V 10UF M 3A
C665	24109103	CERAMIC CHIP, 50V B 0.01UF K
C666	24073084	ELECTROLYTIC, 50V 4.7UF M 3A
C667	24794100	ELECTROLYTIC, 16V 10UF M
C668	24105560	CERAMIC CHIP, 50V CH 56PF J
C669	24105560	CERAMIC CHIP, 50V CH 56PF J
C680	24073073	ELECTROLYTIC, 35V 2200UF M 3A
C681	24109103	CERAMIC CHIP, 50V B 0.01UF K

Location No.	Parts No.	Description
C682	24073082	ELECTROLYTIC, 50V 2.2UF M 3A
C683	24073053	ELECTROLYTIC, 25V 100UF M 3A
C684	24795470	ELECTROLYTIC, 25V 47UF M
⚠C801	24503004	PLASTIC FILM, AC275V 0.47UF M
⚠C802	24503002	PLASTIC FILM, AC275V 0.22UF M
⚠C803	24503002	PLASTIC FILM, AC275V 0.22UF M
C805	24092281	CERAMIC DISC, AC250V E 4700PF
C809	24073103	200V 680UF RUBIKON CE692Q2D681M
C810	24073103	200V 680UF RUBIKON CE692Q2D681M
⚠C811	24092557	CERAMIC DISC, AC250V E 2200PF M
⚠C812	24092557	CERAMIC DISC, AC250V E 2200PF M
⚠C816	24092555	CERAMIC DISC, AC250V E 1000PF M
C861	24092342	CERAMIC DISC, 2KV R 560PF K
C862	24503045	PLASTIC FILM, 63V 0.22UF J
C863	24212221	CERAMIC DISC, 50V B 220PF K
C864	24590681	PLASTIC FILM CQ922M 50V 680PF J
C865	24073063	ELECTROLYTIC CE04P 35V 4.7UF M 3A
C866	24820223	PLASTIC FILM, 630V 0.022UF J
C868	24073068	ELECTROLYTIC, 35V 100UF M 3A
C883	24567104	PLASTIC FILM, 50V 0.1UF J
C884	24214331	CERAMIC DISC, 500V B 330PF K
C885	24073191	ELECTROLYTIC CE04P 35V 1500UF M 3A
C890	24214331	CERAMIC DISC, 500V B 330PF K
C891	24073161	ELECTROLYTIC CE04P 16V 3900UF M 3A
C892	24214331	CERAMIC DISC, 500V B 330PF K
C893	24073173	ELECTROLYTIC CE04P 10V 3900UF M 3A
C894	24214331	CERAMIC DISC, 500V B 330PF K
C895	24073095	ELECTROLYTIC, 50V 2200UF M 3A
C898	24503041	PLASTIC FILM , 63V 0.1UF J
C8200	24073067	ELECTROLYTIC, 35V 47UF M 3A
C8201	24503047	PLASTIC FILM, 63V 0.33UF J
C8202	24073169	ELECTROLYTIC CE04P 25V 470UF M 3A
C8210	24073037	ELECTROLYTIC, 16V 47UF M 3A
C8211	24503047	PLASTIC FILM, 63V 0.33UF J
C8212	24503047	PLASTIC FILM, 63V 0.33UF J
C8214	24073169	ELECTROLYTIC CE04P 25V 470UF M 3A
C8220	24073068	ELECTROLYTIC, 35V 100UF M 3A
C8221	24073169	ELECTROLYTIC CE04P 25V 470UF M 3A
C8223	24073086	ELECTROLYTIC, 50V 10UF M 3A
C8224	24073087	ELECTROLYTIC, 50V 22UF M 3A
C8225	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A

Location No.	Parts No.	Description
C8240	24073038	ELECTROLYTIC, 16V 100UF M 3A
C8241	24503047	PLASTIC FILM, 63V 0.33UF J
C8242	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A
C8250	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A
C8251	24567334	PLASTIC FILM, 50V 0.33UF J
C8252	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A
C8253	24669339	ELECTROLYTIC, 50V 3.3UF M
C8905	24073002	ELECTROLYTIC CE04P 6.3V 220UF M 3A
C8911	24503047	PLASTIC FILM, 63V 0.33UF J
C8912	24503047	PLASTIC FILM, 63V 0.33UF J
C8930	24073067	ELECTROLYTIC, 35V 47UF M 3A
C8931	24503047	PLASTIC FILM, 63V 0.33UF J
C8932	24073152	ELECTROLYTIC CE04P 16V 330UF M 3A
C8933	24073069	ELECTROLYTIC, 35V 220UF M 3A
C8940	24073067	ELECTROLYTIC, 35V 47UF M 3A
C8941	24503047	PLASTIC FILM, 63V 0.33UF J
C8942	24073152	ELECTROLYTIC CE04P 16V 330UF M 3A
C8943	24073069	ELECTROLYTIC, 35V 220UF M 3A
CA81	24109183	CERAMIC CHIP, 50V B 18000PF K
CA82	24109183	CERAMIC CHIP, 50V B 18000PF K
CA83	24109102	CERAMIC CHIP, 50V B 1000PF K
CA84	24109183	CERAMIC CHIP, 50V B 18000PF K
CA85	24109183	CERAMIC CHIP, 50V B 18000PF K
CA86	24109183	CERAMIC CHIP, 50V B 18000PF K
CA87	24109183	CERAMIC CHIP, 50V B 18000PF K
CA88	24109102	CERAMIC CHIP, 50V B 1000PF K
CA89	24109183	CERAMIC CHIP, 50V B 18000PF K
CA90	24109183	CERAMIC CHIP, 50V B 18000PF K
CA91	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA92	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA93	24619040	ELEC. CHIP, 16V 10UF M 3A
CA94	24619040	ELEC. CHIP, 16V 10UF M 3A
CA95	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA96	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA97	24105330	CERAMIC CHIP, 50V CH 33PF J
CA98	24105330	CERAMIC CHIP, 50V CH 33PF J
CB01	24794470	ELECTROLYTIC, 16V 47UF M
CB51	24590103	PLASTIC FILM, 50V 0.01UF J
CB52	24794470	ELECTROLYTIC, 16V 47UF M
CB53	24503041	PLASTIC FILM , 63V 0.1UF J
CB54	24436221	CERAMIC DISC, 50V SL 220PF J
CB55	24797010	ELECTROLYTIC, 50V 1UF M
CB56	24794470	ELECTROLYTIC, 16V 47UF M
CB58	24794470	ELECTROLYTIC, 16V 47UF M
CB59	24590103	PLASTIC FILM, 50V 0.01UF J
CB60	24794100	ELECTROLYTIC, 16V 10UF M
CB61	24503041	PLASTIC FILM , 63V 0.1UF J
CB81	24092730	CERAMIC CHIP, 16V B 0.1UF K
CB504	24794100	ELECTROLYTIC, 16V 10UF M
CB505	24092398	CERAMIC DISC, 25V 0.1UF Z
CC01	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC02	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC03	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC04	24619100	ELECTROLYTIC, 16V 10UF M
CC05	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC06	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC07	24619100	ELECTROLYTIC, 16V 10UF M
CC08	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC09	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC10	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC11	24619100	ELECTROLYTIC, 16V 10UF M
CC12	24092538	CERAMIC CHIP, 10V F 1UF Z
CC13	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC14	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC15	24619100	ELECTROLYTIC, 16V 10UF M
CC16	24092730	CERAMIC CHIP, 16V B 0.1UF K

Location No.	Parts No.	Description
CC17	24619100	ELECTROLYTIC, 16V 10UF M
CC18	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC19	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC20	24619100	ELECTROLYTIC, 16V 10UF M
CC22	24092538	CERAMIC CHIP, 10V F 1UF Z
CC24	24092538	CERAMIC CHIP, 10V F 1UF Z
CC25	24092538	CERAMIC CHIP, 10V F 1UF Z
CC26	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC27	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC28	24619102	ELECTROLYTIC, 16V 47UF M
CC30	24619100	ELECTROLYTIC, 16V 10UF M
CC31	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC32	24619100	ELECTROLYTIC, 16V 10UF M
CC33	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC34	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC35	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC36	24619100	ELECTROLYTIC, 16V 10UF M
CC40	24092538	CERAMIC CHIP, 10V F 1UF Z
CC41	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC42	24109103	CERAMIC CHIP, 50V B 0.01UF K
⚠ CE01	24503002	PLASTIC FILM, AC275V 0.22UF M
CE04	24092281	CERAMIC DISC, AC250V E 4700PF
CE05	24092281	CERAMIC DISC, AC250V E 4700PF
⚠ CE07	24092565	CERAMIC DISC, AC250V B 470PF K
⚠ CE08	24092565	CERAMIC DISC, AC250V B 470PF K
⚠ CE09	24092565	CERAMIC DISC, AC250V B 470PF K
CE10	24073217	ELECTROLYTIC 692Q 200V 560UF M
CE11	24591332	PLASTIC FILM, 50V 3300PF J
CE12	24073053	ELECTROLYTIC, 25V 100UF M 3A
CE13	24503213	PLASTIC FILM CF92 T 1500VH 1500PF H
CE14	24591471	PLASTIC FILM, 50V 470PF J
CE15	24092339	CERAMIC DISC, 2KV 330PF K
CE16	24212102	CERAMIC DISC, 50V B 1000PF K
CE17	24503041	PLASTIC FILM , 63V 0.1UF J
CE43	24503041	PLASTIC FILM , 63V 0.1UF J
CE50	24676100	ELECTROLYTIC, 100V 10UF M 3A
CE51	24073155	ELECTROLYTIC, 16V 1000UF M 3A
CE52	24503041	PLASTIC FILM , 63V 0.1UF J
CE53	24214221	CERAMIC DISC, 500V B 220PF K
CE54	24503041	PLASTIC FILM , 63V 0.1UF J
CE55	24617006	ELECTROLYTIC, 25V 820UF M
CE56	24665221	ELECTROLYTIC, 10V 220UF M 3A
CE57	24073038	ELECTROLYTIC, 16V 100UF M 3A
CE58	24073038	ELECTROLYTIC, 16V 100UF M 3A
CE59	24666331	ELECTROLYTIC 04Q, 16V 330UF M 3A
CE61	24073020	ELECTROLYTIC, 10V 1000UF M 3A
CE63	24666470	ELECTORLYTIC, 16V 47UF M 3A
CE64	24503047	PLASTIC FILM, 63V 0.33UF J
CE65	24666470	ELECTORLYTIC, 16V 47UF M 3A
CE66	24073138	ELECTROLYTIC CE04P 10V 220UF M 3A
CE67	24503047	PLASTIC FILM, 63V 0.33UF J
CE68	24073138	ELECTROLYTIC CE04P 10V 220UF M 3A
CE69	24669339	ELECTROLYTIC, 50V 3.3UF M
CE71	24214331	CERAMIC DISC, 500V B 330PF K
CE72	24214331	CERAMIC DISC, 500V B 330PF K
CE73	24214331	CERAMIC DISC, 500V B 330PF K
CE74	24214331	CERAMIC DISC, 500V B 330PF K
CE75	24214331	CERAMIC DISC, 500V B 330PF K
CE76	24214331	CERAMIC DISC, 500V B 330PF K
CE79	24669220	ELECTROLYTIC, 50V 22UF M 3A
CE80	24073157	ELECTROLYTIC CE04P 16V 1500UF M 3A
CE81	24073157	ELECTROLYTIC CE04P 16V 1500UF M 3A
CE82	24676470	ELECTROLYTIC, 100V 47UF M 3A
CE83	24073155	ELECTROLYTIC, 16V 1000UF M 3A
CE84	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A
CE85	24073158	ELECTROLYTIC CE04P 16V 2200UF M 3A

Location No.	Parts No.	Description
CE86	24073133	ELECTROLYTIC CE04P 6.3V 3300UF M 3A
CE87	24073141	ELECTROLYTIC CE04P 10V 1000UF M 3A
CE88	24073155	ELECTROLYTIC, 16V 1000UF M 3A
CF01	24073152	ELECTROLYTIC CE04P 16V 330UF M 3A
CK01	24436821	CERAMIC DISC, 50V SL 820PF J
CK02	24436821	CERAMIC DISC, 50V SL 820PF J
CK03	24436821	CERAMIC DISC, 50V SL 820PF J
CK04	24436821	CERAMIC DISC, 50V SL 820PF J
CK05	24436821	CERAMIC DISC, 50V SL 820PF J
CK06	24436821	CERAMIC DISC, 50V SL 820PF J
CK07	24436821	CERAMIC DISC, 50V SL 820PF J
CK08	24436821	CERAMIC DISC, 50V SL 820PF J
CK09	24436821	CERAMIC DISC, 50V SL 820PF J
CK10	24436821	CERAMIC DISC, 50V SL 820PF J
CK11	24436821	CERAMIC DISC, 50V SL 820PF J
CR509	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CS01	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS02	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS05	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS06	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS07	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS08	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS09	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS10	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS11	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS12	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS13	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS14	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS15	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS16	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS17	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS18	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS19	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS20	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS21	24085987	ELEC. NONPOLAR, 16V 4.7UF M 7L NP
CS22	24085987	ELEC. NONPOLAR, 16V 4.7UF M 7L NP
CS25	24109103	CERAMIC CHIP, 50V B 0.01UF K
CS26	24794470	ELECTROLYTIC, 16V 47UF M
CS27	24794220	ELECTROLYTIC, 16V 22UF M
CS28	24794100	ELECTROLYTIC, 16V 10UF M
CS29	24794100	ELECTROLYTIC, 16V 10UF M
CS30	24794100	ELECTROLYTIC, 16V 10UF M
CS33	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CS34	24092795	CERAMIC CHIP, 6.3V B 2.2UF K
CV01	24092621	CERAMIC CHIP, 10V B 1UF K
CV02	24092621	CERAMIC CHIP, 10V B 1UF K
CV03	24092621	CERAMIC CHIP, 10V B 1UF K
CV04	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV05	24092621	CERAMIC CHIP, 10V B 1UF K
CV06	24092621	CERAMIC CHIP, 10V B 1UF K
CV11	24092621	CERAMIC CHIP, 10V B 1UF K
CV13	24100104	CERAMIC CHIP, 25V F 0.1UF Z @U103
	24794100	ELECTROLYTIC, 16V 10UF M @UV03
CV14	24092621	CERAMIC CHIP, 10V B 1UF K @U103
	24232103	CERAMIC DISC, 50V F 0.01UF Z @UV03
CV15	24100104	CERAMIC CHIP, 25V F 0.1UF Z @U103
	24232103	CERAMIC DISC, 50V F 0.01UF Z @UV03
CV27	24762471	ELECTROLYTIC, 10V 470UF M
CV29	24763101	ELECTROLYTIC, 16V 100UF M
CV30	24092730	CERAMIC CHIP, 16V B 0.1UF K
CV38	24109102	CERAMIC CHIP, 50V B 1000PF K
CV39	24109102	CERAMIC CHIP, 50V B 1000PF K
CV46	24092621	CERAMIC CHIP, 10V B 1UF K
CV70	24794101	ELECTROLYTIC, 16V 100UF M
CV71	24092730	CERAMIC CHIP, 16V B 0.1UF K
CV72	24794220	ELECTROLYTIC, 16V 22UF M

Location No.	Parts No.	Description
CV73	24092730	CERAMIC CHIP, 16V B 0.1UF K
CV74	24092730	CERAMIC CHIP, 16V B 0.1UF K
CV75	24092730	CERAMIC CHIP, 16V B 0.1UF K
CV245	24092621	CERAMIC CHIP, 10V B 1UF K
CV246	24092621	CERAMIC CHIP, 10V B 1UF K
CV247	24092621	CERAMIC CHIP, 10V B 1UF K
CV249	24092621	CERAMIC CHIP, 10V B 1UF K
CV250	24092621	CERAMIC CHIP, 10V B 1UF K
CV251	24092621	CERAMIC CHIP, 10V B 1UF K
CY504	24109222	CERAMIC CHIP, 50V B 2200PF K
CY505	24105120	CERAMIC CHIP, 50V CH 12PF J
CY512	24092463	CERAMIC CHIP, 16V B 0.22UF K
RESISTORS		
R010	24011102	CHIP, 1/20W 1K OHM J
R150	24011101	CHIP, 1/20W 100 OHM J
R153	24011101	CHIP, 1/20W 100 OHM J
R264	24011750	CHIP, 1/20W 75 OHM J
R265	24011750	CHIP, 1/20W 75 OHM J
R266	24011750	CHIP, 1/20W 75 OHM J
R286	24011750	CHIP, 1/20W 75 OHM J
R287	24011750	CHIP, 1/20W 75 OHM J
R288	24011750	CHIP, 1/20W 75 OHM J
R347	24011101	CHIP, 1/20W 100 OHM J
R502	24011101	CHIP, 1/20W 100 OHM J
R504	24011103	CHIP, 1/20W 10K OHM J
R505	24011123	CHIP, 1/20W 12K OHM J
R506	24011222	CHIP, 1/20W 2.2K OHM J
R510	24011123	CHIP, 1/20W 12K OHM J
R511	24011103	CHIP, 1/20W 10K OHM J
R512	24011123	CHIP, 1/20W 12K OHM J
R513	24011222	CHIP, 1/20W 2.2K OHM J
R514	24011332	CHIP, 1/20W 3.3K OHM J
R516	24011472	CHIP, 1/20W 4.7K OHM J
R520	24011101	CHIP, 1/20W 100 OHM J
R521	24011101	CHIP, 1/20W 100 OHM J
R523	24011332	CHIP, 1/20W 3.3K OHM J
R524	24011182	CHIP, 1/20W 1.8K OHM J
R545	24011101	CHIP, 1/20W 100 OHM J
R548	24011102	CHIP, 1/20W 1K OHM J
R550	24011332	CHIP, 1/20W 3.3K OHM J
R552	24011152	CHIP, 1/20W 1.5K OHM J
R560	24011332	CHIP, 1/20W 3.3K OHM J
R561	24011471	CHIP, 1/20W 470 OHM J
R574	24011222	CHIP, 1/20W 2.2K OHM J
R575	24011103	CHIP, 1/20W 10K OHM J
R576	24011123	CHIP, 1/20W 12K OHM J
R601	24011822	CHIP, 1/20W 8.2K OHM J
R602	24011822	CHIP, 1/20W 8.2K OHM J
R603	24011122	CHIP, 1/20W 1.2K OHM J
R604	24011122	CHIP, 1/20W 1.2K OHM J
R605	24011101	CHIP, 1/20W 100 OHM J
R606	24011101	CHIP, 1/20W 100 OHM J
R609	24011563	CHIP, 1/20W 56K OHM J
R610	24011223	CHIP, 1/20W 22K OHM J
R611	24011103	CHIP, 1/20W 10K OHM J
R612	24011222	CHIP, 1/20W 2.2K OHM J
R613	24011223	CHIP, 1/20W 22K OHM J
R614	24011103	CHIP, 1/20W 10K OHM J
R615	24011104	CHIP, 1/20W 100K OHM J
R616	24011822	CHIP, 1/20W 8.2K OHM J
R621	24011391	CHIP, 1/20W 390 OHM J
R622	24011391	CHIP, 1/20W 390 OHM J
R626	24011223	CHIP, 1/20W 22K OHM J
R627	24011223	CHIP, 1/20W 22K OHM J
R661	24011102	CHIP, 1/20W 1K OHM J

Location No.	Parts No.	Description
R662	24011333	CHIP, 1/20W 33K OHM J
R663	24011822	CHIP, 1/20W 8.2K OHM J
R665	24011223	CHIP, 1/20W 22K OHM J
R666	24011473	CHIP, 1/20W 47K OHM J
R667	24011223	CHIP, 1/20W 22K OHM J
R668	24011473	CHIP, 1/20W 47K OHM J
R671	24011102	CHIP, 1/20W 1K OHM J
R672	24011333	CHIP, 1/20W 33K OHM J
R673	24011822	CHIP, 1/20W 8.2K OHM J
R674	24011472	CHIP, 1/20W 4.7K OHM J
R676	24011104	CHIP, 1/20W 100K OHM J
R677	24011104	CHIP, 1/20W 100K OHM J
R681	24011222	CHIP, 1/20W 2.2K OHM J
R682	24011473	CHIP, 1/20W 47K OHM J
R683	24011223	CHIP, 1/20W 22K OHM J
R684	24011223	CHIP, 1/20W 22K OHM J
R687	24011103	CHIP, 1/20W 10K OHM J
R688	24011224	CHIP, 1/20W 220K OHM J
R693	24000445	CHIP JUMPER, 1608TYPE
R697	24553561	OXIDE METAL FILM, 1W 560 OHM J
R698	24011103	CHIP, 1/20W 10K OHM J
R699	24011103	CHIP, 1/20W 10K OHM J
R810	24568479	CERAMIC COVERED, 7W 4.7 OHM J
R811	24007061	CERAMIC COVERED, 2W 1.8 OHM K
R842	24376563	CARB0N FILM, 1/2W 56K OHM J
R843	24376563	CARB0N FILM, 1/2W 56K OHM J
R844	24366103	CARBON FILM, 1/6W 10K OHM J
R845	24366102	CARBON FILM, 1/6W 1K OHM J
R846	24366471	CARBON FILM, 1/6W 470 OHM J
R847	24366473	CARBON FILM, 1/6W 47K OHM J
R848	24366102	CARBON FILM, 1/6W 1K OHM J
R849	24552470	OXIDE METAL FILM, 1/2W 47 OHM J
R850	24366103	CARBON FILM, 1/6W 10K OHM J
R860	24382101	OXIDE METAL FILM, 1W 100 OHM J
R861	24383333	OXIDE METAL FILM, 2W 33K OHM J
R862	24019463	METAL PLATE, 2W 0.22 OHM J
R863	24019461	METAL PLATE, 2W 0.15 OHM J
R864	24321828	METAL FILM, 1/2W 0.82 OHM J
R865	24381221	OXIDE METAL FILM, 1/2W 220 OHM J
R866	24366681	CARBON FILM, 1/6W 680 OHM J
R867	24366152	CARBON FILM, 1/6W 1.5K OHM J
R868	24555473	OXIDE METAL FILM, 3W 47K OHM J
R869	24366152	CARBON FILM, 1/6W 1.5K OHM J
R870	24366154	CARBON FILM, 1/6W 150K OHM J
R881	24366222	CARBON FILM, 1/6W 2.2K OHM J
R882	24366471	CARBON FILM, 1/6W 470 OHM J
R885	24366102	CARBON FILM, 1/6W 1K OHM J
R886	24000525	METAL FILM, 1/4W 4.7K OHM F
R887	24367683	CARBON FILM, 1/6W 68K OHM G
R888	24000525	METAL FILM, 1/4W 4.7K OHM F
R891	24555331	OXIDE METAL FILM, 3W 330 OHM J
R892	24555331	OXIDE METAL FILM, 3W 330 OHM J
⚠ R899	24005014	METAL FILM, 1W 8.2M OHM J
R8200	24367390	CARBON FILM, 1/6W 390 OHM G
R8210	24000370	METAL FILM, 1/4W 3.3K OHM F
R8211	24000527	METAL FILM, 1/4W 5.6K OHM F
R8215	24366224	CARBON FILM, 1/6W 220K OHM J
R8220	24367390	CARBON FILM, 1/6W 390 OHM G
R8240	24000366	METAL FILM, 1/4W 2.2K OHM F
R8241	24000360	METAL FILM, 1/4W 1.2K OHM F
R8242	24367101	CARBON FILM, 1/6W 100 OHM G
R8250	24000145	METAL FILM, 1/4W 330 OHM F
R8251	24000145	METAL FILM, 1/4W 330 OHM F
R8252	24367392	CARBON FILM, 1/6W 3.9K OHM G
R8902	24366332	CARBON FILM, 1/6W 3.3K OHM J
R8903	24366332	CARBON FILM, 1/6W 3.3K OHM J

Location No.	Parts No.	Description
R8904	24366472	CARBON FILM, 1/6W 4.7K OHM J
R8905	24366681	CARBON FILM, 1/6W 680 OHM J
R8908	24366104	CARBON FILM, 1/6W 100K OHM J
R8910	24366472	CARBON FILM, 1/6W 4.7K OHM J
R8911	24366103	CARBON FILM, 1/6W 10K OHM J
R8912	24366223	CARBON FILM, 1/6W 22K OHM J
R8913	24366334	CARBON FILM, 1/6W 330K OHM J
R8914	24366223	CARBON FILM, 1/6W 22K OHM J
R8915	24366102	CARBON FILM, 1/6W 1K OHM J
R8931	24367123	CARBON FILM, 1/6W 12K OHM G
R8932	24367152	CARBON FILM, 1/6W 1.5K OHM G
R8934	24367472	CARBON FILM, 1/6W 4.7K OHM G
R8941	24367123	CARBON FILM, 1/6W 12K OHM G
R8942	24367152	CARBON FILM, 1/6W 1.5K OHM G
R8944	24367472	CARBON FILM, 1/6W 4.7K OHM G
R8950	24366103	CARBON FILM, 1/6W 10K OHM J
R8951	24366103	CARBON FILM, 1/6W 10K OHM J
RA71	24011822	CHIP, 1/20W 8.2K OHM J
RA72	24011153	CHIP, 1/2OW 15K OHM J
RA73	24011273	CHIP, 1/20W 27K OHM J
RA75	24011822	CHIP, 1/20W 8.2K OHM J
RA76	24011153	CHIP, 1/2OW 15K OHM J
RA77	24011114	CHIP, 1/20W 110K OHM J
RA78	24000445	CHIP JUMPER, 1608TYPE
RA79	24000445	CHIP JUMPER, 1608TYPE
RA81	24011102	CHIP, 1/20W 1K OHM J
RA82	24011102	CHIP, 1/20W 1K OHM J
RA84	24011102	CHIP, 1/20W 1K OHM J
RA85	24011102	CHIP, 1/20W 1K OHM J
RA86	24011102	CHIP, 1/20W 1K OHM J
RA87	24011102	CHIP, 1/20W 1K OHM J
RA89	24011102	CHIP, 1/20W 1K OHM J
RA90	24011102	CHIP, 1/20W 1K OHM J
RA91	24011470	CHIP, 1/20W 47 OHM J
RA92	24011470	CHIP, 1/20W 47 OHM J
RA93	24011103	CHIP, 1/20W 10K OHM J
RA94	24011332	CHIP, 1/20W 3.3K OHM J
RA95	24011332	CHIP, 1/20W 3.3K OHM J
RB15	24366471	CARBON FILM, 1/6W 470 OHM J
RB19	24366470	CARBON FILM, 1/6W 47 OHM J
RB51	24366224	CARBON FILM, 1/6W 220K OHM J
RB52	24366123	CARBON FILM, 1/6W 12K OHM J
RB53	24366123	CARBON FILM, 1/6W 12K OHM J
RB54	24366123	CARBON FILM, 1/6W 12K OHM J
RB55	24366224	CARBON FILM, 1/6W 220K OHM J
RB56	24366151	CARBON FILM, 1/6W 150 OHM J
RB57	24366103	CARBON FILM, 1/6W 10K OHM J
RB58	24366103	CARBON FILM, 1/6W 10K OHM J
RB59	24366122	CARBON FILM, 1/6W 1.2K OHM J
RB60	24366224	CARBON FILM, 1/6W 220K OHM J
RB61	24366100	CARBON FILM, 1/6W 10 OHM J
RB62	24366272	CARBON FILM, 1/6W 2.7K OHM J
RB63	24366271	CARBON FILM, 1/6W 270 OHM J
RB67	24366221	CARBON FILM, 1/6W 220 OHM J
RB69	24366272	CARBON FILM, 1/6W 2.7K OHM J
RB70	24366331	CARBON FILM, 1/6W 330 OHM J
RB81	24011222	CHIP, 1/20W 2.2K OHM J
RB82	24011471	CHIP, 1/20W 470 OHM J
RB83	24011102	CHIP, 1/20W 1K OHM J
RB84	24011473	CHIP, 1/20W 47K OHM J
RB87	24011102	CHIP, 1/20W 1K OHM J
RB88	24011102	CHIP, 1/20W 1K OHM J
RB89	24011103	CHIP, 1/20W 10K OHM J
RB90	24011103	CHIP, 1/20W 10K OHM J
RB92	24011473	CHIP, 1/20W 47K OHM J
RB93	24011102	CHIP, 1/20W 1K OHM J

Location No.	Parts No.	Description
RB504	24366104	CARBON FILM, 1/6W 100K OHM J
RB505	24366101	CARBON FILM, 1/6W 100 OHM J
RB506	24366390	CARBON FILM, 1/6W 39 OHM J
RB558	24366223	CARBON FILM, 1/6W 22K OHM J
RB559	24366223	CARBON FILM, 1/6W 22K OHM J
RB561	24366101	CARBON FILM, 1/6W 100 OHM J
RB562	24366104	CARBON FILM, 1/6W 100K OHM J
RB563	24366390	CARBON FILM, 1/6W 39 OHM J
RB567	24366223	CARBON FILM, 1/6W 22K OHM J
RC01	24011223	CHIP, 1/20W 22K OHM J
RC02	24011220	CHIP, 1/20W 22 OHM J
RC03	24011220	CHIP, 1/20W 22 OHM J
RC04	24011220	CHIP, 1/20W 22 OHM J
RC05	24011220	CHIP, 1/20W 22 OHM J
RC06	24011220	CHIP, 1/20W 22 OHM J
RC07	24011220	CHIP, 1/20W 22 OHM J
RC08	24011220	CHIP, 1/20W 22 OHM J
RC09	24011270	CHIP, 1/20W 27 OHM J
RC10	24011270	CHIP, 1/20W 27 OHM J
RC13	24000824	CHIP JUMPER, 2125TYPE
RC14	24000824	CHIP JUMPER, 2125TYPE
RC15	24000824	CHIP JUMPER, 2125TYPE
RC16	24011103	CHIP, 1/20W 10K OHM J
RC17	24000824	CHIP JUMPER, 2125TYPE
RC18	24000824	CHIP JUMPER, 2125TYPE
RC19	24000824	CHIP JUMPER, 2125TYPE
RC20	24000824	CHIP JUMPER, 2125TYPE
RC21	24011103	CHIP, 1/20W 10K OHM J
RC22	24011104	CHIP, 1/20W 100K OHM J
RC23	24011103	CHIP, 1/20W 10K OHM J
RC25	24011103	CHIP, 1/20W 10K OHM J
RC26	24011103	CHIP, 1/20W 10K OHM J
RC27	24011102	CHIP, 1/20W 1K OHM J
RC32	24011331	CHIP, 1/20W 330 OHM J
RC33	24011103	CHIP, 1/20W 10K OHM J
RC34	24011331	CHIP, 1/20W 330 OHM J
RC35	24011103	CHIP, 1/20W 10K OHM J
RC36	24011331	CHIP, 1/20W 330 OHM J
RC37	24011103	CHIP, 1/20W 10K OHM J
RC38	24011331	CHIP, 1/20W 330 OHM J
RC39	24011103	CHIP, 1/20W 10K OHM J
RC40	24011102	CHIP, 1/20W 1K OHM J
RC41	24011105	CHIP, 1/20W 1M OHM J
RC49	24011103	CHIP, 1/20W 10K OHM J
RC50	24011123	CHIP, 1/20W 12K OHM J
RC51	24011103	CHIP, 1/20W 10K OHM J
RC52	24011103	CHIP, 1/20W 10K OHM J
RC53	24011103	CHIP, 1/20W 10K OHM J
RC54	24011220	CHIP, 1/20W 22 OHM J
RC58	24011104	CHIP, 1/20W 100K OHM J
RC60	24011103	CHIP, 1/20W 10K OHM J
RC61	24011564	CHIP, 1/20W 560K OHM J
RC62	24011103	CHIP, 1/20W 10K OHM J
RE10	24382223	OXIDE METAL FILM, 1W 22K OHM J
RE11	24322568	OXIDE METAL FILM, 1W 0.56 OHM J
RE12	24322568	OXIDE METAL FILM, 1W 0.56 OHM J
RE13	24381681	OXIDE METAL FILM, 1/2W 680 OHM J
RE14	24383330	OXIDE FILM 2W 33. J
RE15	24383330	OXIDE FILM 2W 33. J
RE16	24366682	CARBON FILM, 1/6W 6.8K OHM J
RE17	24366152	CARBON FILM, 1/6W 1.5K OHM J
RE18	24381101	OXIDE METAL FILM, 1/2W 100 OHM J
RE22	24366102	CARBON FILM, 1/6W 1K OHM J
RE40	24366471	CARBON FILM, 1/6W 470 OHM J
RE43	24366102	CARBON FILM, 1/6W 1K OHM J
RE44	24000529	METAL FILM, 1/4W 6.8K OHM F

Location No.	Parts No.	Description
RE45	24000356	METAL FILM, 1/4W 820 OHM F
RE46	24000529	METAL FILM, 1/4W 6.8K OHM F
RE48	24366222	CARBON FILM, 1/6W 2.2K OHM J
RE50	24000147	METAL FILM, 1/4W 470 OHM F
RE51	24000155	METAL FILM 1/4W 15 F
RE52	24000167	METAL FILM, 1/4W 56 OHM F 50P
RE53	24000135	METAL FILM 1/4W 120 F
RE54	24000220	METAL FILM, 1/4W 390 OHM F
RE55	24366223	CARBON FILM, 1/6W 22K OHM J
RE60	24382332	OXIDE FILM 1W 3.3K J
RE80	24000245	METAL FILM, 1/4W 33K OHM F
RE81	24000250	METAL FILM, 1/4W 56K OHM F
RF01	24366103	CARBON FILM, 1/6W 10K OHM J
RF02	24366122	CARBON FILM, 1/6W 1.2K OHM J
RF03	24366103	CARBON FILM, 1/6W 10K OHM J
RF04	24366472	CARBON FILM, 1/6W 4.7K OHM J
RF05	24382680	OXIDE METAL FILM, 1W 68 OHM J
RS01	24011562	CHIP, 1/20W 5.6K OHM J
RS02	24011562	CHIP, 1/20W 5.6K OHM J
RS05	24011562	CHIP, 1/20W 5.6K OHM J
RS06	24011562	CHIP, 1/20W 5.6K OHM J
RS07	24011562	CHIP, 1/20W 5.6K OHM J
RS08	24011562	CHIP, 1/20W 5.6K OHM J
RS09	24011562	CHIP, 1/20W 5.6K OHM J
RS10	24011562	CHIP, 1/20W 5.6K OHM J
RS11	24011562	CHIP, 1/20W 5.6K OHM J
RS12	24011562	CHIP, 1/20W 5.6K OHM J
RS13	24011562	CHIP, 1/20W 5.6K OHM J
RS14	24011562	CHIP, 1/20W 5.6K OHM J
RS15	24011562	CHIP, 1/20W 5.6K OHM J
RS16	24011562	CHIP, 1/20W 5.6K OHM J
RS17	24011562	CHIP, 1/20W 5.6K OHM J
RS18	24011562	CHIP, 1/20W 5.6K OHM J
RS19	24011562	CHIP, 1/20W 5.6K OHM J
RS20	24011562	CHIP, 1/20W 5.6K OHM J
RS21	24011101	CHIP, 1/20W 100 OHM J
RS22	24011101	CHIP, 1/20W 100 OHM J
RS23	24011101	CHIP, 1/20W 100 OHM J
RS24	24011101	CHIP, 1/20W 100 OHM J
RS27	24011101	CHIP, 1/20W 100 OHM J
RS28	24011101	CHIP, 1/20W 100 OHM J
RS29	24011682	CHIP, 1/20W 6.8K OHM J
RS30	24011182	CHIP, 1/20W 1.8K OHM J
RS31	24011100	CHIP, 1/20W 10 OHM J
RS32	24011222	CHIP, 1/20W 2.2K OHM J
RS33	24011222	CHIP, 1/20W 2.2K OHM J
RS34	24011102	CHIP, 1/20W 1K OHM J
RS35	24011102	CHIP, 1/20W 1K OHM J
RS36	24011102	CHIP, 1/20W 1K OHM J
RS37	24011223	CHIP, 1/20W 22K OHM J
RS38	24011223	CHIP, 1/20W 22K OHM J
RS39	24011101	CHIP, 1/20W 100 OHM J
RS40	24011101	CHIP, 1/20W 100 OHM J
RV007	24011222	CHIP, 1/20W 2.2K OHM J
RV008	24011101	CHIP, 1/20W 100 OHM J
RV009	24011101	CHIP, 1/20W 100 OHM J
RV01	24011101	CHIP, 1/20W 100 OHM J
RV011	24011102	CHIP, 1/20W 1K OHM J
RV012	24011101	CHIP, 1/20W 100 OHM J
RV013	24011271	CHIP, 1/20W 270 OHM J
RV023	24011821	CHIP, 1/20W 820 OHM J
RV024	24011222	CHIP, 1/20W 2.2K OHM J
RV025	24011101	CHIP, 1/20W 100 OHM J
RV03	24011101	CHIP, 1/20W 100 OHM J
RV06	24011101	CHIP, 1/20W 100 OHM J
RV07	24011562	CHIP, 1/20W 5.6K OHM J

Location No.	Parts No.	Description
RV073	24011102	CHIP, 1/20W 1K OHM J
RV08	24011101	CHIP, 1/20W 100 OHM J
RV09	24011101	CHIP, 1/20W 100 OHM J
RV10	24011101	CHIP, 1/20W 100 OHM J
RV11	24011101	CHIP, 1/20W 100 OHM J
RV12	24011101	CHIP, 1/20W 100 OHM J
RV14	24011562	CHIP, 1/20W 5.6K OHM J
RV15	24011101	CHIP, 1/20W 100 OHM J
RV17	24011101	CHIP, 1/20W 100 OHM J
RV19	24011101	CHIP, 1/20W 100 OHM J
RV20	24366750	CARBON FILM, 1/6W 75 OHM J
RV21	24011562	CHIP, 1/20W 5.6K OHM J @U103
	24366750	CARBON FILM, 1/6W 75 OHM J @UV03
RV22	24366750	CARBON FILM, 1/6W 75 OHM J
RV23	24366101	CARBON FILM, 1/6W 100 OHM J
RV32	24011104	CHIP, 1/20W 100K OHM J
RV33	24011104	CHIP, 1/20W 100K OHM J
RV34	24011104	CHIP, 1/20W 100K OHM J
RV35	24011750	CHIP, 1/20W 75 OHM J
RV36	24011750	CHIP, 1/20W 75 OHM J
RV37	24011101	CHIP, 1/20W 100 OHM J
RV38	24011223	CHIP, 1/20W 22K OHM J
RV40	24011750	CHIP, 1/20W 75 OHM J
RV41	24011750	CHIP, 1/20W 75 OHM J
RV42	24011750	CHIP, 1/20W 75 OHM J
RV43	24011750	CHIP, 1/20W 75 OHM J
RV44	24011101	CHIP, 1/20W 100 OHM J
RV61	24011101	CHIP, 1/20W 100 OHM J
RV70	24011101	CHIP, 1/20W 100 OHM J
RV74	24011101	CHIP, 1/20W 100 OHM J
RV76	24011102	CHIP, 1/20W 1K OHM J
RV85	24366471	CARBON FILM, 1/6W 470 OHM J
RV86	24366471	CARBON FILM, 1/6W 470 OHM J
RV88	24000445	CHIP JUMPER, 1608TYPE
RV89	24011680	CHIP, 1/20W 68 OHM J
RV91	24011330	CHIP, 1/20W 33 OHM J
RV92	24000445	CHIP JUMPER, 1608TYPE
RV93	24000445	CHIP JUMPER, 1608TYPE
RV94	24000445	CHIP JUMPER, 1608TYPE
RV95	24000445	CHIP JUMPER, 1608TYPE
RV96	24000445	CHIP JUMPER, 1608TYPE
RV97	24000445	CHIP JUMPER, 1608TYPE
RV146	24011101	CHIP, 1/20W 100 OHM J
RV147	24011101	CHIP, 1/20W 100 OHM J
RV323	24011101	CHIP, 1/20W 100 OHM J
RV324	24011101	CHIP, 1/20W 100 OHM J
RV325	24011101	CHIP, 1/20W 100 OHM J
RV326	24011101	CHIP, 1/20W 100 OHM J
RV346	24011101	CHIP, 1/20W 100 OHM J
RV578	24011332	CHIP, 1/20W 3.3K OHM J
RV579	24011332	CHIP, 1/20W 3.3K OHM J
RY501	24011303	CHIP, 1/20W 30K OHM J
COIL & TRANSFORMERS		
L101	23289845	COIL, PEAKING, TRF4680AT
L103	23289844	COIL, PEAKING, TRF4470AT
L520	23246253	INDUCTOR, CHIP, TRF4100CN
L522	23246253	INDUCTOR, CHIP, TRF4100CN
L861	23103145	FERRITE CHOKE, TEM2011AA
L862	23103775	FERRITE CHOKE, TEM2014
L881	23103145	FERRITE CHOKE, TEM2011AA
L884	23103145	FERRITE CHOKE, TEM2011AA
L885	23103145	FERRITE CHOKE, TEM2011AA
L886	23103145	FERRITE CHOKE, TEM2011AA
L888	23248321	COIL, CHOKE, TLN3462AH
L890	23248292	COIL, CHOKE, TLN3499GH

Location No.	Parts No.	Description
L892	23248292	COIL, CHOKE, TLN3499GH
L893	23248213	COIL, CHOKE, TLN3481AH
L8930	23248292	COIL, CHOKE, TLN3499GH
L8931	23248292	COIL, CHOKE, TLN3499GH
L8940	23248292	COIL, CHOKE, TLN3499GH
L8941	23248292	COIL, CHOKE, TLN3499GH
LB51	23237987	COIL, PEAKING, TRF4100AC
LC02	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LC03	23103271	FILTER, EMI 2012 201OHM 0.35A TEM2033AD
LC04	23103271	FILTER, EMI 2012 201OHM 0.35A TEM2033AD
LC05	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LC06	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
LE11	23103145	FERRITE CHOKE, TEM2011AA
LE12	23103145	FERRITE CHOKE, TEM2011AA
LE13	23103145	FERRITE CHOKE, TEM2011AA
LE50	23289843	COIL, PEAKING, TRF4330AT
LE51	23280019	COIL, PEAKING, TRF4330AZ
LE53	23248257	COIL, CHOKE, TLN3503AH
LE54	23248213	COIL, CHOKE, TLN3481AH
LE55	23248247	COIL, CHOKE, TLN3499AH
LE56	23280016	COIL, PEAKING, TRF4100AZ
LE57	23248320	COIL, CHOKE, TLN3441AH
LE58	23248247	COIL, CHOKE, TLN3499AH
LE59	23280019	COIL, PEAKING, TRF4330AZ
LE60	23248247	COIL, CHOKE, TLN3499AH
LE71	23103145	FERRITE CHOKE, TEM2011AA
LE72	23103145	FERRITE CHOKE, TEM2011AA
LE73	23103145	FERRITE CHOKE, TEM2011AA
LE74	23103145	FERRITE CHOKE, TEM2011AA
LE75	23103145	FERRITE CHOKE, TEM2011AA
LE76	23103145	FERRITE CHOKE, TEM2011AA
LF01	23280022	COIL, PEAKING, TRF4101AZ
LF02	23280022	COIL, PEAKING, TRF4101AZ
LV13	23246253	INDUCTOR, CHIP, TRF4100CN
LV20	23238705	COIL, PEAKING, TRF4560AJ
LY503	23246253	INDUCTOR, CHIP, TRF4100CN
T801	23211776	COIL, LINE FILTER 37X44H 6.8MH TRF3197AH
⚠ T802	23211776	COIL, LINE FILTER 37X44H 6.8MH TRF3197AH
⚠ T803	23211765	COIL, LINE FILTER, TRF3239AH
⚠ T804	23211725	COIL, LINE FILTER, TRF3228AQ
⚠ T862	23217682	TRANSFORMER, CONVERTER, TPW3553AS
⚠ TE01	23211725	COIL, LINE FILTER, TRF3228AQ
⚠ TE60	23217662	TRANSFORMER, CONVERTER TPW3547AS
SEMICONDUCTORS		
Q501	23009929	IC, TA1383FG(DRY,EL)
Q502	23205014	TRANSISTOR, 2SC4667-O
Q511	23314994	TRANSISTOR, 2SA1576A106
Q515	23314994	TRANSISTOR, 2SA1576A106
Q516	23314994	TRANSISTOR, 2SA1576A106
Q518	23314993	TRANSISTOR, 2SC4081 Q
Q519	23314993	TRANSISTOR, 2SC4081 Q
Q601	23009603	IC, AN7580
Q612	23205005	TRANSISTOR, KTA2014Y
Q613	23205006	TRANSISTOR, KTC4075Y
Q614	23205236	TRANSISTOR, NPN R1=4.7K R2=47K KRC106S (SOT-23)
Q661	23205204	TRANSISTOR, KTC2875B-RTK
Q662	23205204	TRANSISTOR, KTC2875B-RTK
Q663	23906596	IC, BA4558
Q664	23205246	TRANSISTOR, KRA104S(SOT-23)
Q681	23205204	TRANSISTOR, KTC2875B-RTK
Q682	23205204	TRANSISTOR, KTC2875B-RTK
Q801	23135037	IC, STR-F6268S
⚠ Q841	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q845	23314965	TRANSISTOR, KTC3198 Y
Q846	23314965	TRANSISTOR, KTC3198 Y

Location No.	Parts No.	Description
Q847	23314965	TRANSISTOR, KTC3198 Y
⚠ Q862	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q881	23000701	IC, NJM431L
Q8200	23085050	IC, SI-3120J(LF1101)
Q8210	23000469	IC, PQ5EV3
Q8220	23904163	IC, SI-3090CA
Q8230	23009546	IC, REGULATOR +5V 3% NJM2396F05D
Q8240	23009998	IC, BA00JC5WT-V5
Q8250	23000469	IC, PQ5EV3
Q8251	70200563	IC, PST9129
Q8901	23314965	TRANSISTOR, KTC3198 Y
Q8902	23314965	TRANSISTOR, KTC3198 Y
Q8904	23314962	TRANSISTOR, KTA1266 Y
Q8911	23314965	TRANSISTOR, KTC3198 Y
Q8912	23314965	TRANSISTOR, KTC3198 Y
Q8930	23009998	IC, BA00JC5WT-V5
Q8940	23009998	IC, BA00JC5WT-V5
Q8950	23119747	IC, OPE AMP, TA75358P
QA91	23900992	SENSOR, TOUCH QT2C01-AS QT2C01-AS
QA92	23900992	SENSOR, TOUCH QT2C01-AS QT2C01-AS
QA93	23000283	IC, R1121N
QB51	23319808	IC, M5218AP
QB52	23314965	TRANSISTOR, KTC3198 Y
QB53	23314962	TRANSISTOR, KTA1266 Y
QB81	23314204	TRANSISTOR, 2SC2412K,Q
QB83	70200849	IC, BA10393F
QB84	23314204	TRANSISTOR, 2SC2412K,Q
QB510	23114460	TRANSISTOR, RN1204
QB511	23114460	TRANSISTOR, RN1204
QB512	23114623	TRANSISTOR, 2SC2878-A(TEM
QB513	23114460	TRANSISTOR, RN1204
QB502	23114422	TRANSISTOR, 2SA562TM-Y
QB508	23114422	TRANSISTOR, 2SA562TM-Y
QB509	23114623	TRANSISTOR, 2SC2878-A(TEM
QC01	23085057	IC, USB CONTROLLER
QC02	23085062	IC, UPA1813
QC03	23085062	IC, UPA1813
QC04	23085062	IC, UPA1813
QC05	23085062	IC, UPA1813
QC08	23085061	IC, REG PQ033EZ01ZP
QE01	23135010	IC, STRG6653
⚠ QE05	23009270	IC, PHOTO COUPLER, PS2581L1(D)
QE40	23000701	IC, NJM431L
QE50	23000806	IC, SI-8033SS
QE52	23009998	IC, BA00JC5WT-V5
QE53	23000469	IC, PQ5EV3
QE54	23314141	TRANSISTOR, 2SC3852
QF01	23114735	TRANSISTOR, 2SA102-Y(C)
QF02	23314965	TRANSISTOR, KTC3198 Y
QS01	23009916	IC, MM1631AJBE
QS02	23314993	TRANSISTOR, 2SC4081 Q
QS03	23314993	TRANSISTOR, 2SC4081 Q
QS04	23314993	TRANSISTOR, 2SC4081 Q
QS05	23205246	TRANSISTOR, KRA104S(SOT-23)
QS06	23205204	TRANSISTOR, KTC2875B-RTK
QS07	23205204	TRANSISTOR, KTC2875B-RTK
QV001	23314993	TRANSISTOR, 2SC4081 Q
QV002	23314993	TRANSISTOR, 2SC4081 Q
QV003	23314993	TRANSISTOR, 2SC4081 Q
QV004	23314994	TRANSISTOR, 2SA1576A106
QV008	23314994	TRANSISTOR, 2SA1576A106
QV01	23009940	IC, MM1630AQ
QV48	23114528	TRANSISTOR, 2SC1740S
QV70	23314993	TRANSISTOR, 2SC4081 Q
QV71	23314993	TRANSISTOR, 2SC4081 Q
D601	23316231	DIODE, 1SS355

Location No.	Parts No.	Description
D602	23316231	DIODE, 1SS355
D603	23316231	DIODE, 1SS355
D604	23316231	DIODE, 1SS355
D605	23316231	DIODE, 1SS355
D606	23316231	DIODE, 1SS355
D607	23316231	DIODE, 1SS355
D608	23316231	DIODE, 1SS355
D609	23316231	DIODE, 1SS355
D611	23316231	DIODE, 1SS355
D612	23316231	DIODE, 1SS355
D613	23316231	DIODE, 1SS355
D614	23316231	DIODE, 1SS355
D615	23316231	DIODE, 1SS355
D616	23316231	DIODE, 1SS355
D617	23316231	DIODE, 1SS355
D628	23316597	DIODE, ZENER, MA8120-M
D801	23316393	DIODE, D5SB60, 4009 F05
D821	23118859	DIODE, 1SS133
D844	23316673	DIODE, ZENER, MTZJ5.6C
D845	23118859	DIODE, 1SS133
D848	23118859	DIODE, 1SS133
D849	23118859	DIODE, 1SS133
D850	23118513	DIODE, ZENER, RD11ESA B3
D861	23316672	DIODE, ZENER, MTZJ5.6B
D863	23118859	DIODE, 1SS133
D864	23357366	DIODE, FR105-B5
D865	23118859	DIODE, 1SS133
D866	23316381	DIODE, RU1P
D867	23316754	DIODE, ZENER, MTZJ33B
D883	23316184	DIODE, FML-G12S
D886	23357042	DIODE, FMX-12S(023-108)
D887	23316768	DIODE, FMB-26L
D888	23357353	DIODE, FML-G22S
D894	23316677	DIODE, ZENER, MTZJ6.8A
D895	23316677	DIODE, ZENER, MTZJ6.8A
D896	23316677	DIODE, ZENER, MTZJ6.8A
D897	23316677	DIODE, ZENER, MTZJ6.8A
D898	23316677	DIODE, ZENER, MTZJ6.8A
⚠ D899	24019485	VARISTOR, TNR10V431K
D8200	23118859	DIODE, 1SS133
D8902	23118859	DIODE, 1SS133
D8903	23118859	DIODE, 1SS133
D8904	23316673	DIODE, ZENER, MTZJ5.6C
D8905	23316673	DIODE, ZENER, MTZJ5.6C
D8911	23316673	DIODE, ZENER, MTZJ5.6C
D8912	23316673	DIODE, ZENER, MTZJ5.6C
D8913	23316673	DIODE, ZENER, MTZJ5.6C
D8914	23118859	DIODE, 1SS133
D8915	23118859	DIODE, 1SS133
D8922	23118530	DIODE, ZENER, RD5.6ESA B1
D8930	23118859	DIODE, 1SS133
D8931	23118859	DIODE, 1SS133
D8940	23118859	DIODE, 1SS133
D8941	23118859	DIODE, 1SS133
D8950	23118528	DIODE, ZENER, RD5.6ESA B3
D8951	23118528	DIODE, ZENER, RD5.6ESA B3
DB03	23358522	DIODE, LED, SIR-56SB3F
DB51	23358573	PHOTO DIODE, PIN 940NM HPI-2FER4
DB52	23118859	DIODE, 1SS133
DB54	23118859	DIODE, 1SS133
DB55	23118859	DIODE, 1SS133
DB56	23118859	DIODE, 1SS133
DB81	23358584	DIODE, LED, SML-811UTT86
DB82	23358585	LED, LAMP, SML-810MTT86
DB501	23118859	DIODE, 1SS133
DB504	23118859	DIODE, 1SS133

Location No.	Parts No.	Description
DE01	23316391	DIODE, D3SB60(4103)
DE10	23316672	DIODE, ZENER, MTZJ5.6B
DE12	23118859	DIODE, 1SS133
DE13	23118859	DIODE, 1SS133
DE14	23118859	DIODE, 1SS133
DE15	23357366	DIODE, FR105-B5
DE18	23316269	DIODE, AK04
DE19	23316746	DIODE, ZENER, MTZJ27B
DE52	23118213	DIODE, RK44,
DE54	23316734	DIODE, ZENER, MTZJ20B
DE55	23316746	DIODE, ZENER, MTZJ27B
DE60	23357366	DIODE, FR105-B5
DE61	23118052	DIODE, RU4Z LF-L1
DE71	23357434	DIODE, YG801C04RF119
DE72	23316714	DIODE, RL2Z
DE73	23357434	DIODE, YG801C04RF119
DE74	23357434	DIODE, YG801C04RF119
DE75	23316184	DIODE, FML-G12S
DE76	23357434	DIODE, YG801C04RF119
DE79	23316666	DIODE, ZENER, MTZJ4.7B
DV07	23316577	DIODE, ZENER, MA8068-M
DV14	23316577	DIODE, ZENER, MA8068-M
KB01	23000852	IC, REMOCON RECEIVER, PIC-37043TE2
MISCELLANEOUS		
B110	23059128	BACK TERMINAL BOARD, DIGI 52HM94
B112	23059129	PIECE COVER, 52HM84 52HM84
BB10	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB11	23713013	CONNECTOR, SOCKET, B-B 16P 1.5
BB20	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB21	23713013	CONNECTOR, SOCKET, B-B 16P 1.5
BB70	23713309	PLUG , TAC-A46P-B1
BB71	23903159	SOCKET, TAC A46X B1 TAC-A46X-B1
⚠ F801	23144684	FUSE, CARTRIDGE 5X20 125V 8.0A
F801A	23165433	FUSE HOLDER, 5.2 SOC
⚠ F860	23144714	FUSE, AXIAL 125V 4.0A
⚠ F880	23144714	FUSE, AXIAL 125V 4.0A
⚠ F883	23144715	FUSE, AXIAL 125V 5.0A
⚠ F884	23144715	FUSE, AXIAL 125V 5.0A
⚠ F899	23144691	FUSE, CARTRIDGE 5X20 250V 2.0A
F899A	23165433	FUSE HOLDER, 5.2 SOC
⚠ FE01	23144710	FUSE, AXIAL 125V 2.0A
⚠ FE72	23144708	FUSE, AXIAL 125V 1.0A
⚠ FE73	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE74	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE75	23144714	FUSE, AXIAL 125V 4.0A
⚠ FE76	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE77	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE79	23144709	FUSE, AXIAL 125V 1.5A
G101	23103828	INDUCTOR, BEAD, TEM2121M
G102	23103828	INDUCTOR, BEAD, TEM2121M
GJ105	24000445	CHIP JUMPER, 1608TYPE
GJ150	23103828	INDUCTOR, BEAD, TEM2121M
GJ151	23103828	INDUCTOR, BEAD, TEM2121M
GR103	24000445	CHIP JUMPER, 1608TYPE
H003	23344497	SWITCH, 2I3O US POD JALCO RSU142
H003A	23740989	NUT, F-CONNECTOR 2H BS
H507A	23103840	FERRITE CORE, TFE1013
HA01A	23103327	CORE, FERRITE W33X6.5X12 TFE1023
HB22A	23103840	FERRITE CORE, TFE1013
HB22B	23103840	FERRITE CORE, TFE1013
HS90A	23103328	CORE, FERRITE W36X10X13 TFE1024
HS91A	23103326	CORE, FERRITE W22X6.5X8 TFE1022
HT01A	23103325	CORE, FERRITE W69X18X19 TFE1021AD
HT20A	23103840	FERRITE CORE, TFE1013
HX18A	23103326	CORE, FERRITE W22X6.5X8 TFE1022

Location No.	Parts No.	Description
HX19A	23103327	CORE, FERRITE W33X6.5X12 TFE1023
JR001	24000445	CHIP JUMPER, 1608TYPE
JR002	24000445	CHIP JUMPER, 1608TYPE
JR003	24000445	CHIP JUMPER, 1608TYPE
JR004	24000445	CHIP JUMPER, 1608TYPE
JR005	24000445	CHIP JUMPER, 1608TYPE
JR006	24000445	CHIP JUMPER, 1608TYPE
JR007	24000445	CHIP JUMPER, 1608TYPE
JR008	24000445	CHIP JUMPER, 1608TYPE
JR009	24000445	CHIP JUMPER, 1608TYPE
JR010	24000445	CHIP JUMPER, 1608TYPE
JR011	24000445	CHIP JUMPER, 1608TYPE
JR012	24000445	CHIP JUMPER, 1608TYPE
JR013	24000445	CHIP JUMPER, 1608TYPE
JR014	24000445	CHIP JUMPER, 1608TYPE
M802A	23103839	FERRITE CORE, TFE1012
M811A	23103839	FERRITE CORE, TFE1012
M811B	23103778	FERRITE CORE, TFE1008
M811C	23103778	FERRITE CORE, TFE1008
M891B	23103778	FERRITE CORE, TFE1008
M905A	23103778	FERRITE CORE, TFE1008
M905C	23103839	FERRITE CORE, TFE1012
M906A	23103840	FERRITE CORE, TFE1013
M907A	23103840	FERRITE CORE, TFE1013
MA01	23389246	CABLE, FFC P1.25-15-300 P1.25-15-300
MB91A	23103840	FERRITE CORE, TFE1013
MC01A	23103840	FERRITE CORE, TFE1013
MC01C	23103839	FERRITE CORE, TFE1012
MJ04A	23103778	FERRITE CORE, TFE1008
MJ05A	23103778	FERRITE CORE, TFE1008
MJ900	23389245	CABLE, FFC P1.00-18-387 P1.00-18-387
MJ901	23389244	CABLE, FFC P1.00-14-396 P1.00-14-396
MV01	23368868	CABLE, LVDS 300MM
MV01A	23103840	FERRITE CORE, TFE1013
MV60A	23103840	FERRITE CORE, TFE1013
MX18	23389257	CABLE, FFC P1.25-11-515 P1.25-11-515
MX19	23389258	CABLE, FFC P1.25-17-491 P1.25-17-491
P105	23368578	CONNECTOR, PLUG 4P, 2.5MM G JST-EH, B4B-EH-F1-TV4
⚠ P800	23368013	CONNECTOR, PLUG, 2P 11.88MM W VT-JST
P800A	23103840	FERRITE CORE, TFE1013
⚠ P801	23372117	POWER CORD, U/C 125V10A HSV 5 CMC-02P 5
P802	23368249	POWER CORD, 2P 11.88MM VH-JST
P805	23164965	CONNECTOR, PLUG 4P, W-P3504-#02
P811A	23368274	PLUG, 2P 3.96MM VH-JST VH
P891	23367068	CONNECTOR, PLUG 8P, 2.5MM G JST-EH B8B-EH-F1-TV4
P901	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
P902A	23164563	CONNECTOR, PLUG 3P
P903	23368578	CONNECTOR, PLUG 4P, 2.5MM G JST-EH, B4B-EH-F1-TV4
P906	23367070	PLUG , NP 2.5MM G JST-EH B10B-EH-F1A
P907	23367072	PLUG, NP 2.5MM G JST-EH, B12B-EH-F1A
PA01	23713240	CONNECTOR, 15FE-BT-VK-N JST 15FE-BT-VK-N
PB22	23368578	CONNECTOR, PLUG 4P, 2.5MM G JST-EH, B4B-EH-F1-TV4
PB51	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PB501	23365772	JACK, EARPHONE, HSJ1406-01-020
PB502	23365772	JACK, EARPHONE, HSJ1406-01-020
PB503	23368584	CONNECTOR, PLUG, 3P2.5MM W EH-JST S3B-EH
PC01	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PE05	23367069	CONNECTOR, PLUG, NP 2.5MM G JST-EH, B9B-EH-F1A
PE06	23367071	PLUG, NP 2.5MM G JST-EH, B11B-EH-F1A
PE55A	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PF01	23368581	CONNECTOR, PLUG 7P, 2.5MM G JST-EH B7B-EH-F1-TV4
PF02	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PJ60	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PJ61	23367071	PLUG, NP 2.5MM G JST-EH, B11B-EH-F1A
PJ63	23368579	CONNECTOR, PLUG 5P, 2.5MM G JST-EH, B5B-EH-F1-TV4
PJ64	23368580	CONNECTOR, PLUG 6P, 2.5MM G JST-EH B6B-EH-F1-TV4

Location No.		Parts No.	Description
PV01		23023132	JACK, PIN 2S6P SMK LAP5030-0111GC
PV02		23023205	JACK, PIN 10P SMK KARI2 @U103
		23365819	JACK, 1S3P @UV03
PV03		23023210	JACK, PIN 9P SMK LAP5030-0402F
PX18		23713270	CONNECTOR, 11FE-ST-VK-N 11FE-ST-VK-N
PX19		23713110	CONNECTOR, FE-ST-VK-N 17P JST FE-ST-VK-N 17PR
Q893B		70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q894B		70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
S701		23145430	SWITCH, PUSH, SKHHLMA010
⚠ S810		70145484	SWITCH, SPVF11
SK01	#1	23405385	OPTICALENGINE,PJ-TB25-52S(Incl.SK03-SK08)
	#2	23405386	OPTICALENGINE,PJ-TB25-62S(Incl.SK03-SK08)
SK02		23587201	SERVICE KIT, SHP66 LAMP UNIT
SK03		23122468	P0WER UNIT, RPB-4434ZA RPB-4434ZA
SK04		23762354	PC BOARD ASSY, SENSOR UNIT PD1823 SENSOR UNIT
SK05		23762355	PC BOARD ASSY, MOTOR UNIT PD1824 MTR UNIT
SK06		23125920	FAN, D09A-12PS6 01B(K)
SK07		23125919	FAN, D07F-12SS18 01B(EX)
SK08		23144199	BREAKER,US-603UXTLQE-HUS-603UXTLQE-H
⚠ SR81		23146574	RELAY, DLS5D1-O(M) 0.15W
⚠ SR82		23146564	RELAY, DC12V, TV5, DG-3
⚠ UF02		23125924	DC FAN, D06A-12TM 05B(K)
W661		23351244	SPEAKER,SPBOX(L)8-OHM20WSPK-1455AM
W662		23351245	SPEAKER,SPBOX(R)8-OHM20WSPK-1456AM
X502		23153721	CERAMIC RESONATOR, 503KHZ
XC01		23153589	CRYSTAL RESONATOR, XTAL 12MHZ
XY501		23153961	CRYSTAL, 3.58MHZ
Z105		23103840	FERRITE CORE, TFE1013
ZC01		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC02		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC03		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC04		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC05		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC06		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC07		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC08		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC09		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC10		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC11		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC12		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC13		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC14		24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
ZC15		24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
ZC16		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC17		24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
ZC18		24019479	CHIP BLOCK, 1/32W 22 OHM J X-8
ZC19		24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
ZC20		24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
ZC21	#1	24019404	CHIP BLOCK, 1/16W P-8 10K OHM J

PC BOARD ASSEMBLIES

* E045Z		23788823	PC BOARD ASSY, IR BLASTER 57HX PU PD1289
* U101		23762703	PCBOARDASSY,IFAUDACINPUPD1775C
* U103		23762882	PC BOARD ASSY, BACK AV PU PD1939B
* U802		23762704	PC BOARD ASSY, MAIN POWER PU PD1773B-1
* UA02		23762705	PC BOARD ASSY, REMORT SENSOR PU PD1773B-3
* UA03		23762706	PC BOARD ASSY, DOOR SW PU PD1773B-4
* UA06		23761341	PC BD ASSY, FRONT KEY 57HL83 PU PD1503
* UC01		23762334	PC BOARD ASSY, MULTICARD 51H94 PU PD1821A
* UD02	#1	23148142	PC BOARD ASSY DIGITAL, 52HMX94 DSB-SHU153D
	#2	23148143	PC BOARD ASSY DIGITAL, 62HMX94 DSB-SHU153E
* UE01		23763977	PC BOARD ASSY, SUB POWER HM94 PU PD1820B
* UF01		23762779	PC BOARD ASSY, FAN UNIT 51H94 PU PD1953A
* UV03		23762707	PC BOARD ASSY, FRONT AV PU PD1773B-2

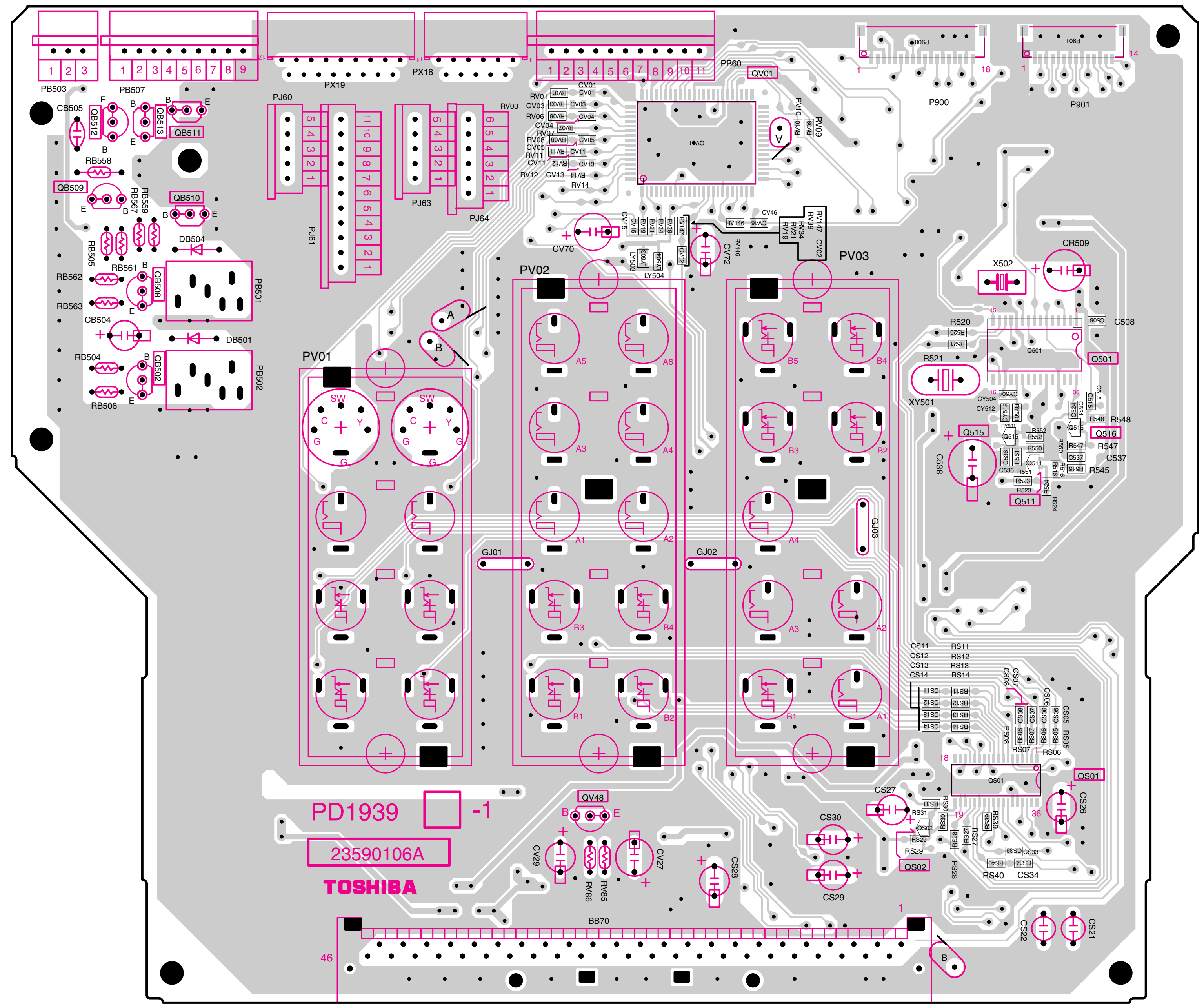
Location No.		Parts No.	Description
TUNER			
⚠ H001		23321495	TUNER,US864MIICPH5VPANAENV56DF3G3F
H002		23148084	IF MODULE, US WOW MSP4440G MVUS53
ACCESSORIES			
A701	#1	23067801	CARTON, CARTON 52HMX94
	#2	23067803	CARTON, CARTON 62HMX94
A703	#1	23946771	PACKING, TOP PACKING
	#2	23946772	PACKING, TOP PACKING
A708	#1	23946768	PACKING, BOTTOM PACKING
	#2	23946769	PACKING, BOTTOM PACKING
A709	#1	23067694	CARTON, BASE TRAY
	#2	23067695	CARTON, BASE TRAY
A710	#1	23946774	PACKING, SUPPORT POST
	#2	23946775	PACKING, SUPPORT POST
A721		23943628	PLYETHLENE COVERING
⚠ K912		23306562	REMOCON HAND UNIT IR, DTVUSA CT-90216
K913		23306531	REMOCON IR, BLASTER GLINK VTR CONT.57H93
⚠ Y101E		23566547	OWNERS MANUAL, ENGLISH 52HMX94 ENG
⚠ Y101F		23566548	OWNERS MANUAL, FRENCH 52HMX94 FRE
Y102		23589650	SHEET, IMPORTANT NOTES 52HM84 NOTES
CABINET PARTS			
⚠ A025		23532769	COVER, LAMP TUNNEL PURCHASE ASY
⚠ A026		23428292	DOOR, DOOR LAMP PURCHASE ASSY
⚠ A101		23532766	COVER, BASE PURCHASE ASSY
⚠ A201	#1	23532859	COVER, BEZEL PURCHASE ASM 52HMX84
	#2	23532861	COVER, BEZEL PURCHASE ASM 62HMX84
A204	#1	23532684	COVER, BACK COVER
	#2	23532763	COVER, BACK COVER
⚠ A205	#1	23532782	COVER, BACKCOVER PURCHASE ASSY
	#2	23532784	COVER, BACKCOVER PURCHASE ASSY
A215		23940083	PIECE, PIECE ENCLOSURE,DLE
A220		23451976	PUSH CATCH, CLICK
⚠ A222	#1	23532884	COVER, PEDESTAL ASSY
	#2	23532882	COVER, PEDESTAL PURCHASE ASSEY
A225		23940084	PIECE, STRIKER
A227	#1	23433318	DECORATIVE, CONTROL PANEL TRIM 52HMX94
	#2	23433319	DECORATIVE, CONTROL PANEL TRIM 62HMX94
A231	#2	23940100	PIECE, PIECE SIDE RIGHT
A232	#2	23940099	PIECE, PIECE SIDE LEFT
⚠ A271	#1	23405372	OPTICAL ENGINE, PJ-TB25-52 (Incl. SK02-SK08)
	#2	23405379	OPTICAL ENGINE, PJ-TB25-62 (Incl. SK02-SK08)
A278		23084267	BRACKET, SPEED CLIP
A305		23717197	SCREW, THUMB SCREW
A306		23717198	SCREW, THUMB SCREW RETAINER
A329	#1	23940118	PIECE, SCREEN FRAME DECO PIECE
	#2	23940120	PIECE, SCREEN FRAME DECO PIECE
A333		23532895	COVER, AV MOUNT PURCHASE 52HMX94
⚠ A401		23532768	COVER, REAR COVER PURCHASE ASY
A421		23532738	COVER, REAR COVER,DLE
A422		23084265	BRACKET, VENT, REAR DLE
A516		23717192	SCREW, SCREW, AV BOARD
K501	#1	23311071	SCREEN, 52K4ML LENTICULAR SHEET SCREEN52K4ML
	#2	23311080	SCREEN, 62K4M LENTICULAR SHEET SCREEN62K4ML
K502	#1	23311072	SCREEN, 52K4M FRESNEL SHEET SCREEN52K4MF
	#2	23311081	SCREEN, 62K4MF FRESNEL SHEET SCREEN62K4MF
K601	#1	23405453	MIRROR, 52G4M3 MIRROR52G4M3
	#2	23405383	MIRROR, 62C4M3 1426/695*725*3 MIRROR62C4M3

BACK AV BOARD PD1939B (U103)

BOTTOM (FOIL) SIDE

BACK AV BOARD PD1939B (U103)

TOP (COMPONENT) SIDE


PB503
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QB508
RB563
CB504
DB501
RB504
QB502
RB506
PB501
PB502
PX19
PX18
PB60
QV01
PJ60
PJ61
PJ63
PJ64
RV01
CV01
CV03
RV06
CV04
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RV08
CV05
RV11
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RV12
CV13
RV14
RV03
RV10
RV09
P900
P901
CV70
CV15
CV72
CV46
RV146
RV147
RV39
RV34
RV21
RV19
CV02
LY503
LY504
PV01
PV02
PV03
CR509
X502
R520
R521
Q501
C508
XY501
CY504
CY512
RY501
Q515
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C515
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GJ02
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CS11
CS12
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CS14
RS11
RS12
RS13
RS14
CS08
CS07
CS06
CS05
RS08
RS07
RS06
RS05
QS01
CS26
CS27
RS31
RS30
QS02
RS29
RS28
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RS39
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CS34
CS30
CS29
CS28
CS22
CS21
QV48
CV29
RV86
RV85
CV27
BB70
PD1939
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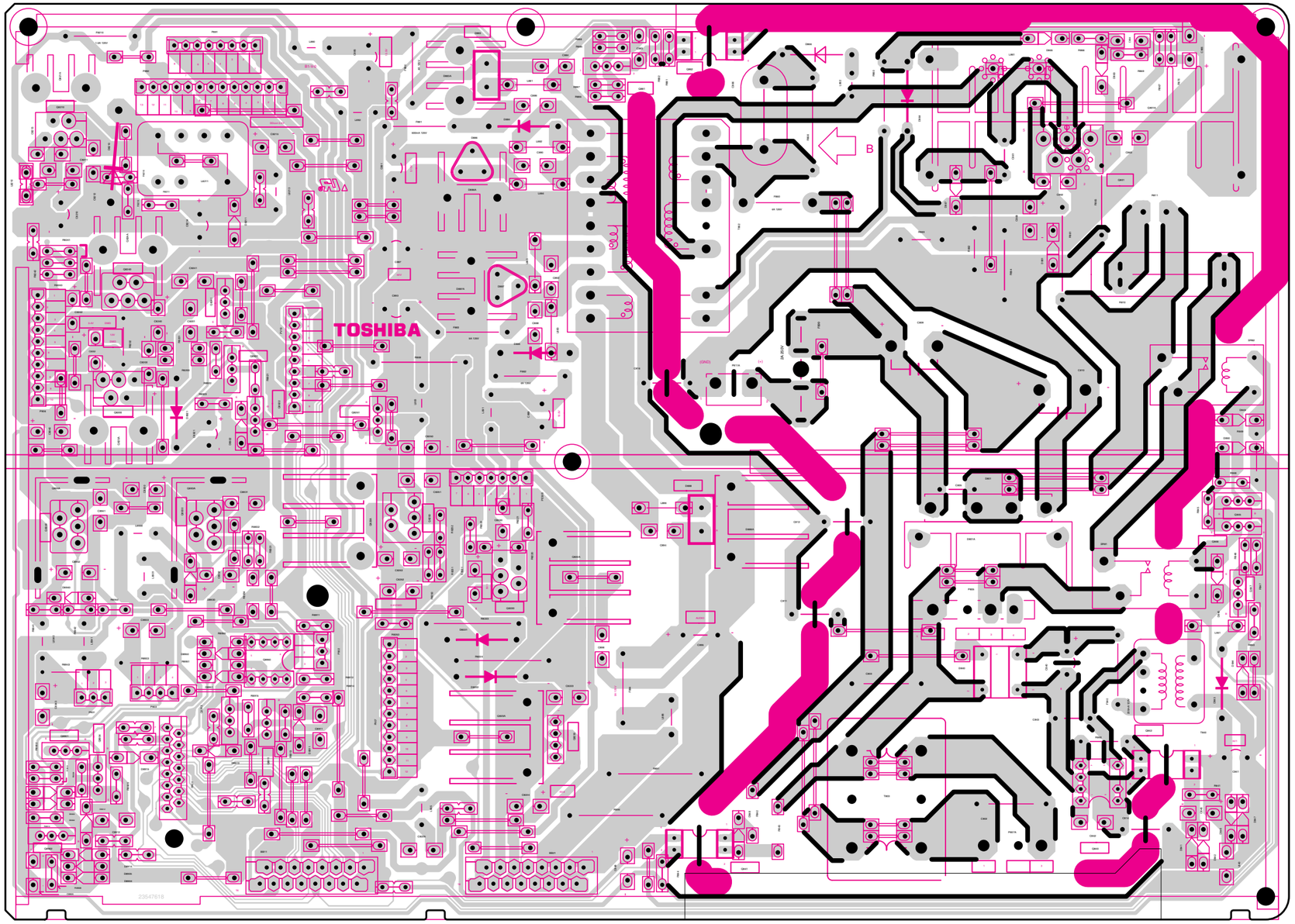
23590106A
TOSHIBA

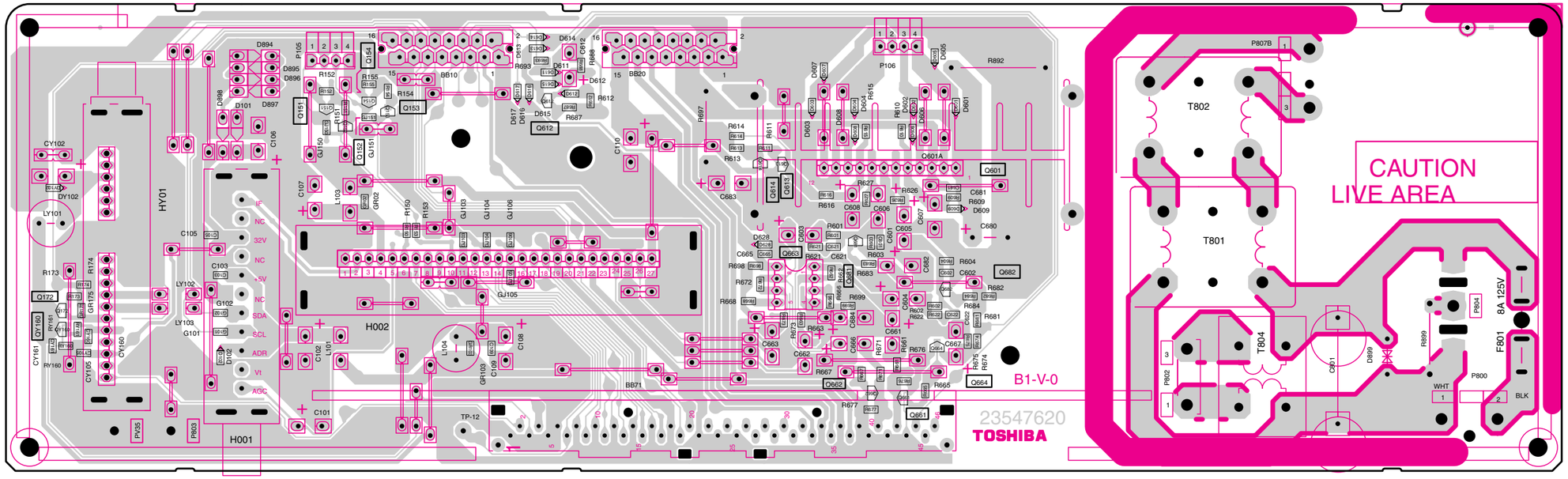
MAIN POWER BOARD PD1773B-1 (U802)

BOTTOM (FOIL) SIDE



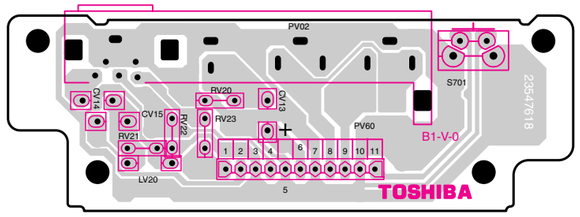
IF AUDIO AC IN BOARD PD1775C (U101)

BOTTOM (FOIL) SIDE



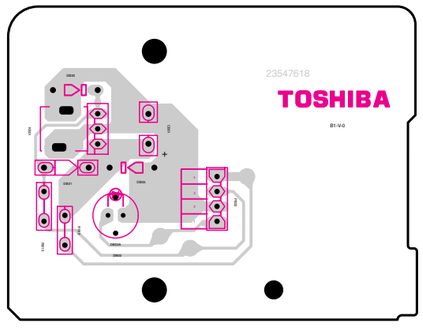
FRONT AV BOARD PD1773B-2 (UV03)

BOTTOM (FOIL) SIDE



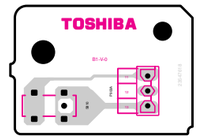
REMOTE SENSOR BOARD PD1773B-3 (UA02)

BOTTOM (FOIL) SIDE



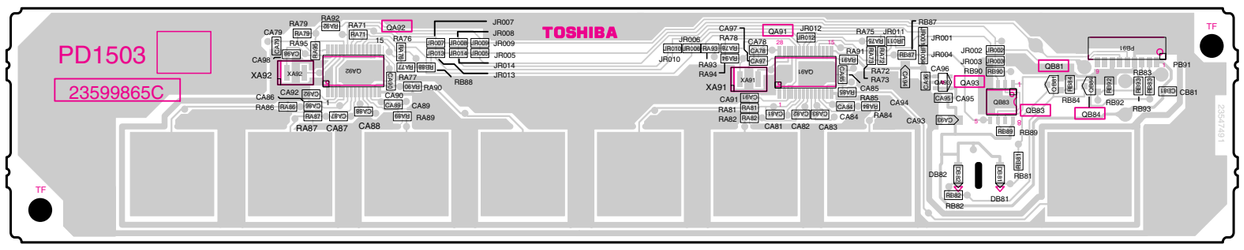
DOOR SWITCH BOARD PD1773B-4 (UA03)

BOTTOM (FOIL) SIDE



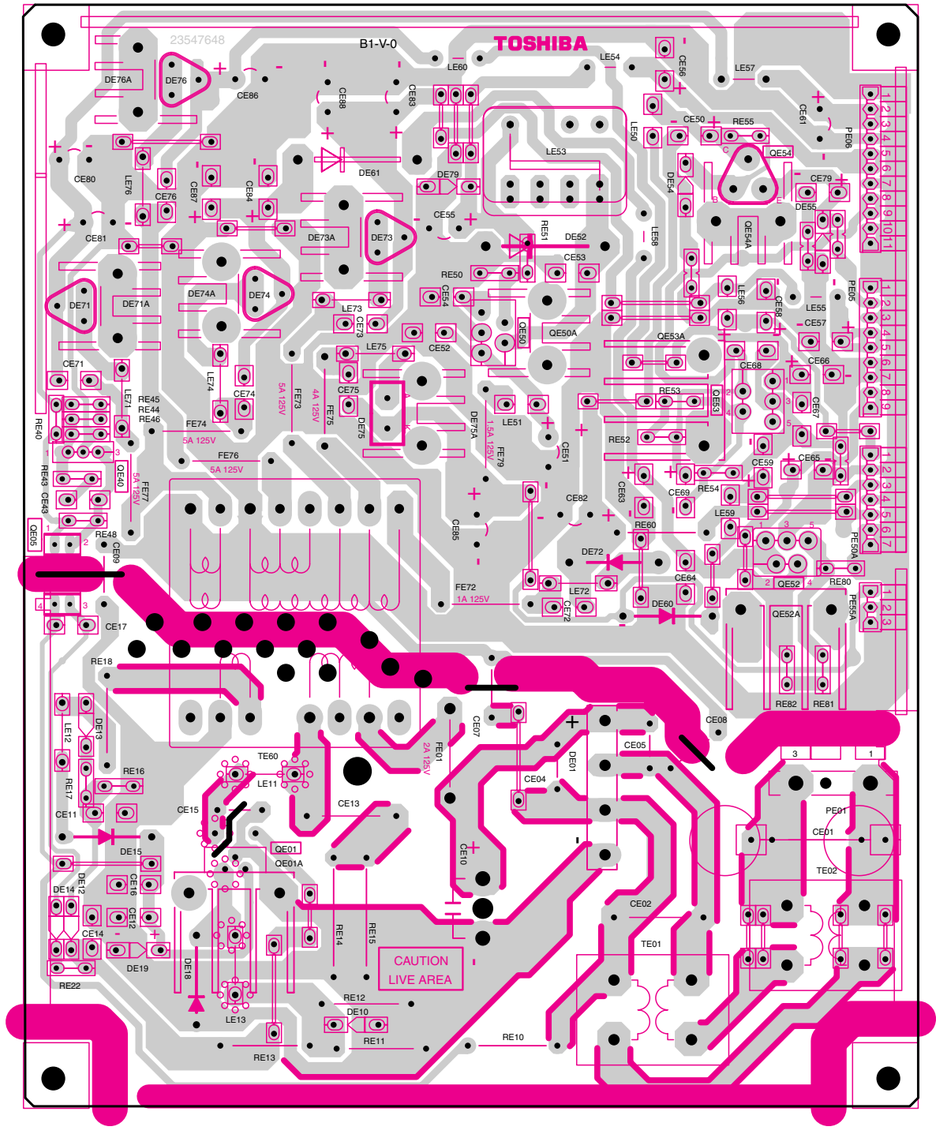
FRONT KEY BOARD PD1503 (UA06)

BOTTOM (FOIL) SIDE



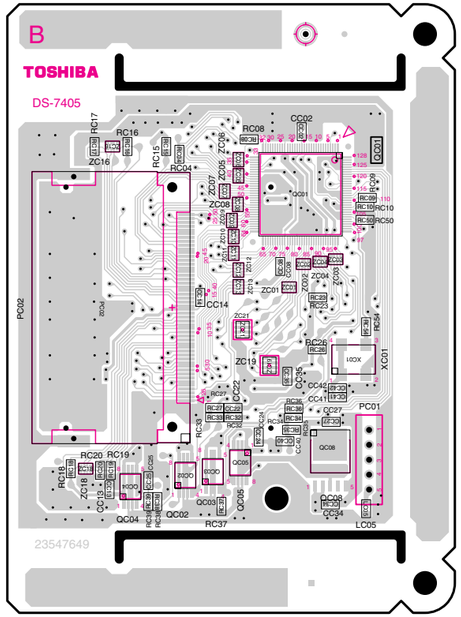
SUB POWER BOARD PD1820B (UE01)

BOTTOM (FOIL) SIDE



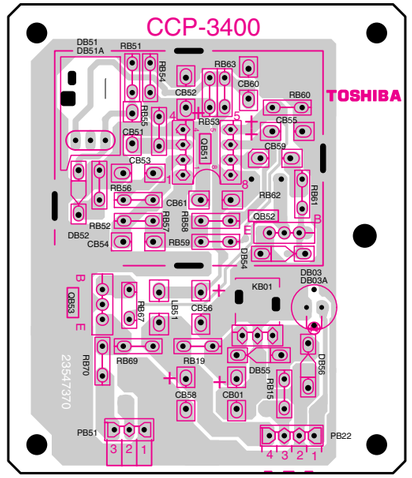
MULTI CARD BOARD PD1821A (UC01)

BOTTOM (FOIL) SIDE



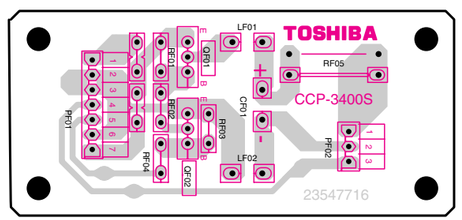
IR BLASTER BOARD PD1289 (E045Z)

BOTTOM (FOIL) SIDE



FAN UNIT BOARD PD1953A (UF01)

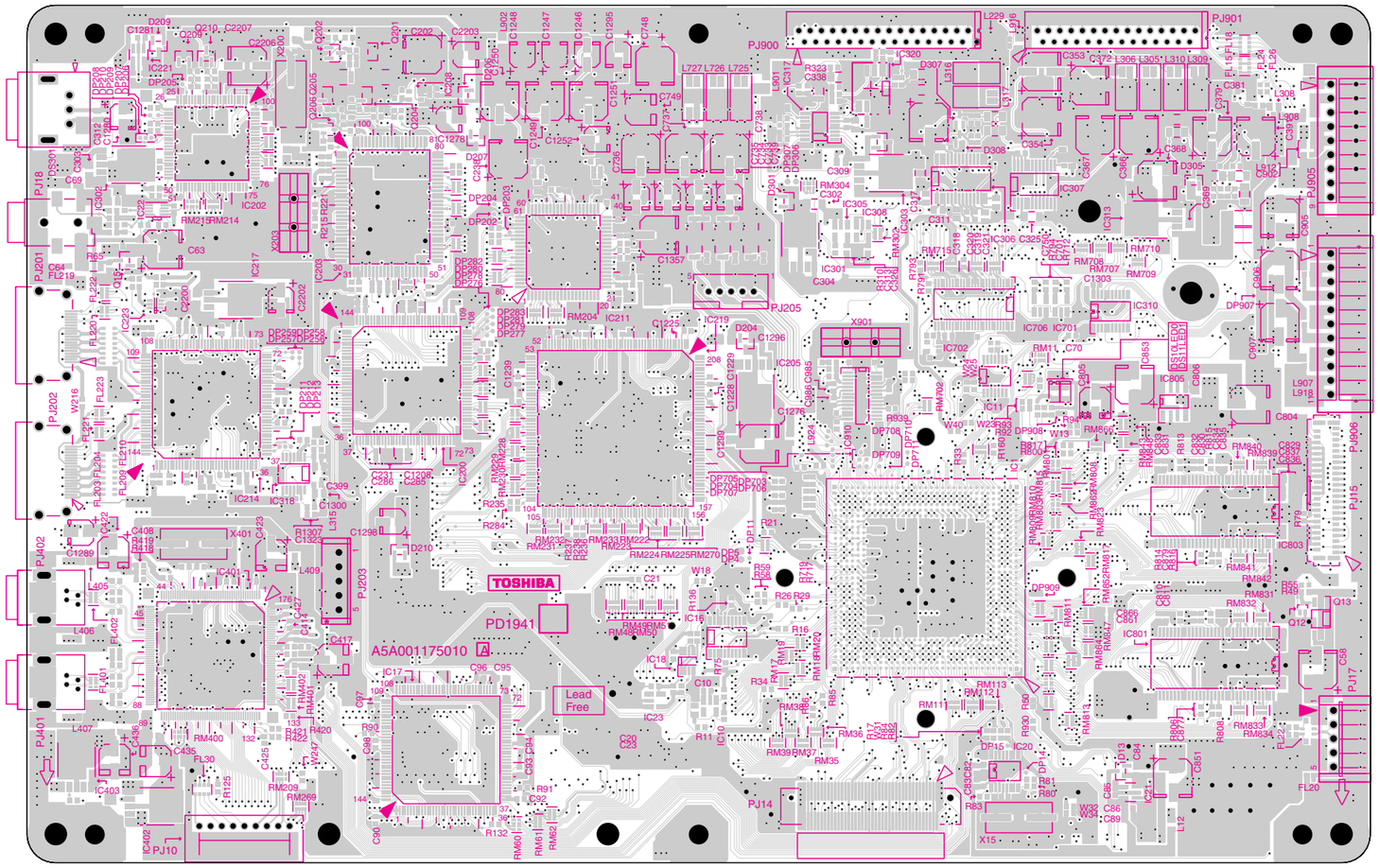
BOTTOM (FOIL) SIDE



OPSS SCALER BOARD (52HMX94:SHU153D 62HMX94:SHU153E) (UD02)

SEINE_PJTV (PD1941)

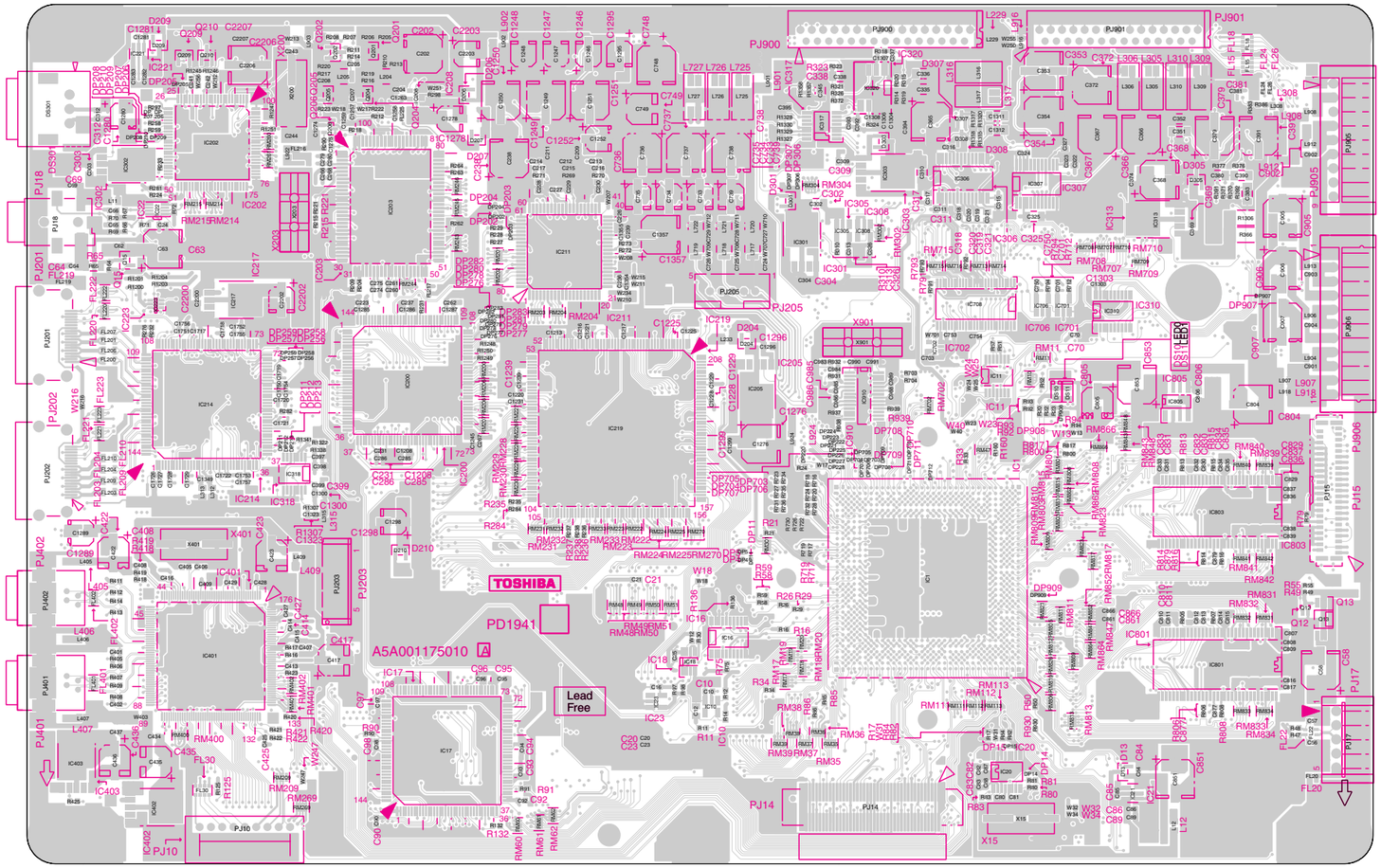
BOTTOM (FOIL) SIDE



OPSS SCALER BOARD (52HMX94:SHU153D 62HMX94:SHU153E) (UD02)

SEINE_PJTV (PD1941)

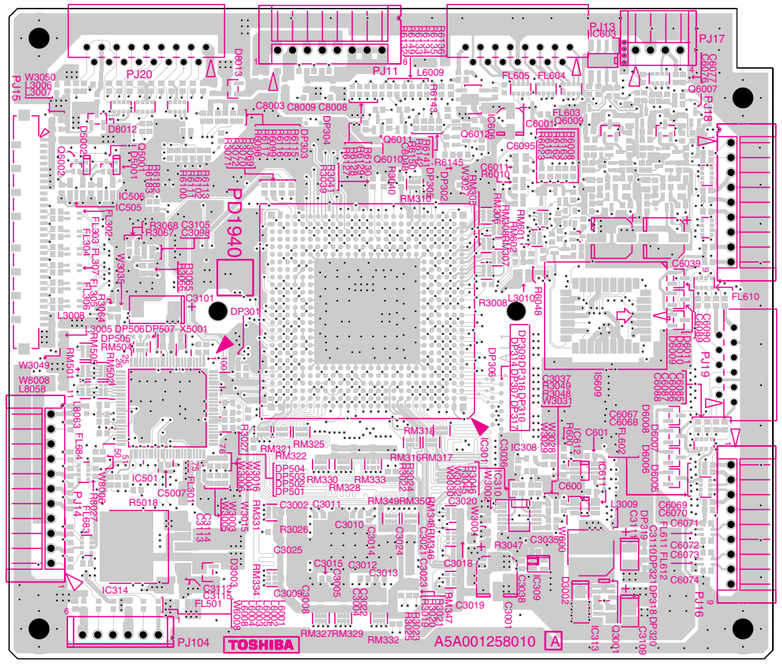
TOP (COMPONENT) SIDE



OPSS SCALER BOARD (52HMX94:SHU153D 62HMX94:SHU153E) (UD02)

DIGITAL (PD1940)

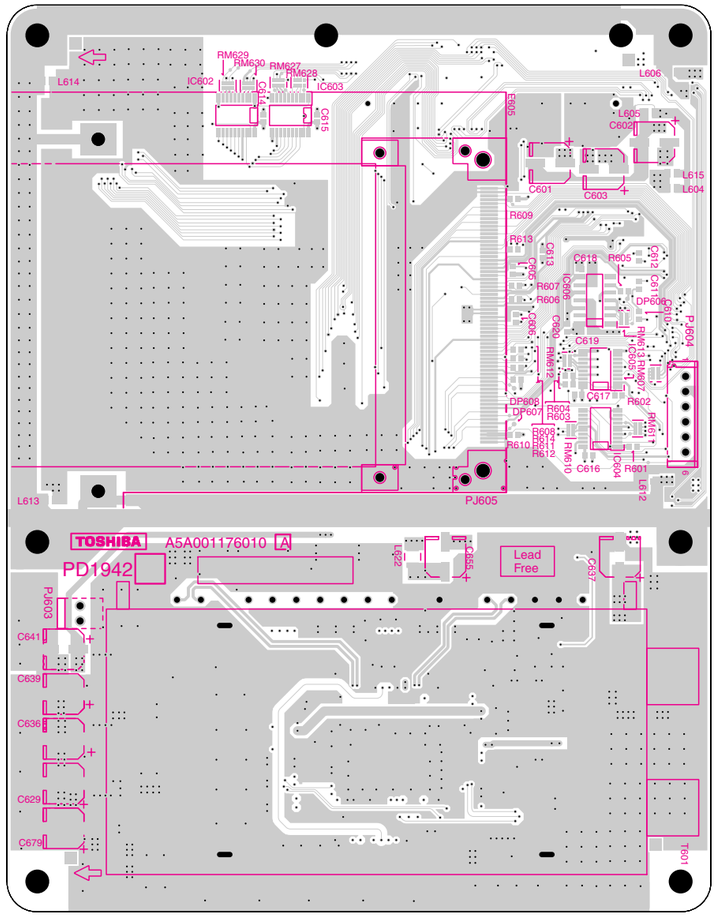
TOP (COMPONENT) SIDE



OPSS SCALER BOARD (52HMX94:SHU153D 62HMX94:SHU153E) (UD02)

POD (PD1942)

TOP (COMPONENT) SIDE



SCHEMATIC DIAGRAM

MODEL : 52HMX94/62HMX94

WARNING : BEFORE SERVICING THIS CHASSIS, READ THE “SAFETY PRECAUTION” AND “PRODUCT SAFETY NOTICE” ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt
   1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt
   10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   Electolytic capacitor
   Mylar capacitor
3. The parts indicated with "⚠" have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage at 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ SCHEMATIC DIAGRAM STRUCTURE

BACK_AV
- (1/6) [SHEET-1/6] 1/125
- (AUDIO_SELECT) [SHEET-2/6] 2/125
- (VIDEO_SELECT1) [SHEET-3/6] 3/125
- (VIDEO_SELECT2) [SHEET-4/6] 4/125
- (IR_BLASTER) [SHEET-5/6] 5/125
- (WRIGHT_CONNECTION) [SHEET-6/6] 6/125

FAN_CONTROL 7/125

FRONT_AV 8/125

FRONT_KEY
- (TOUCH_CONTROL_PANEL) 9/125

IF_AUDIO
- (IF/AUDIO) [SHEET-1/4] 10/125
- (IF/TIF) [SHEET-2/4] 11/125
- (SOUND) [SHEET-3/4] 12/125
- (AIN) [SHEET-4/4] 13/125

IR_BLA_OUT 14/125

MAIN_POWER 15/125

MULTI_CARD
- (1/4) [SHEET-1/4] 16/125
- (2/4) [SHEET-2/4] 17/125
- (3/4) [SHEET-3/4] 18/125
- (4/4) [SHEET-4/4] 19/125

SUB_POWER
- (1/2) [SHEET-1/2] 20/125
- (2/2) [SHEET-2/2] 21/125

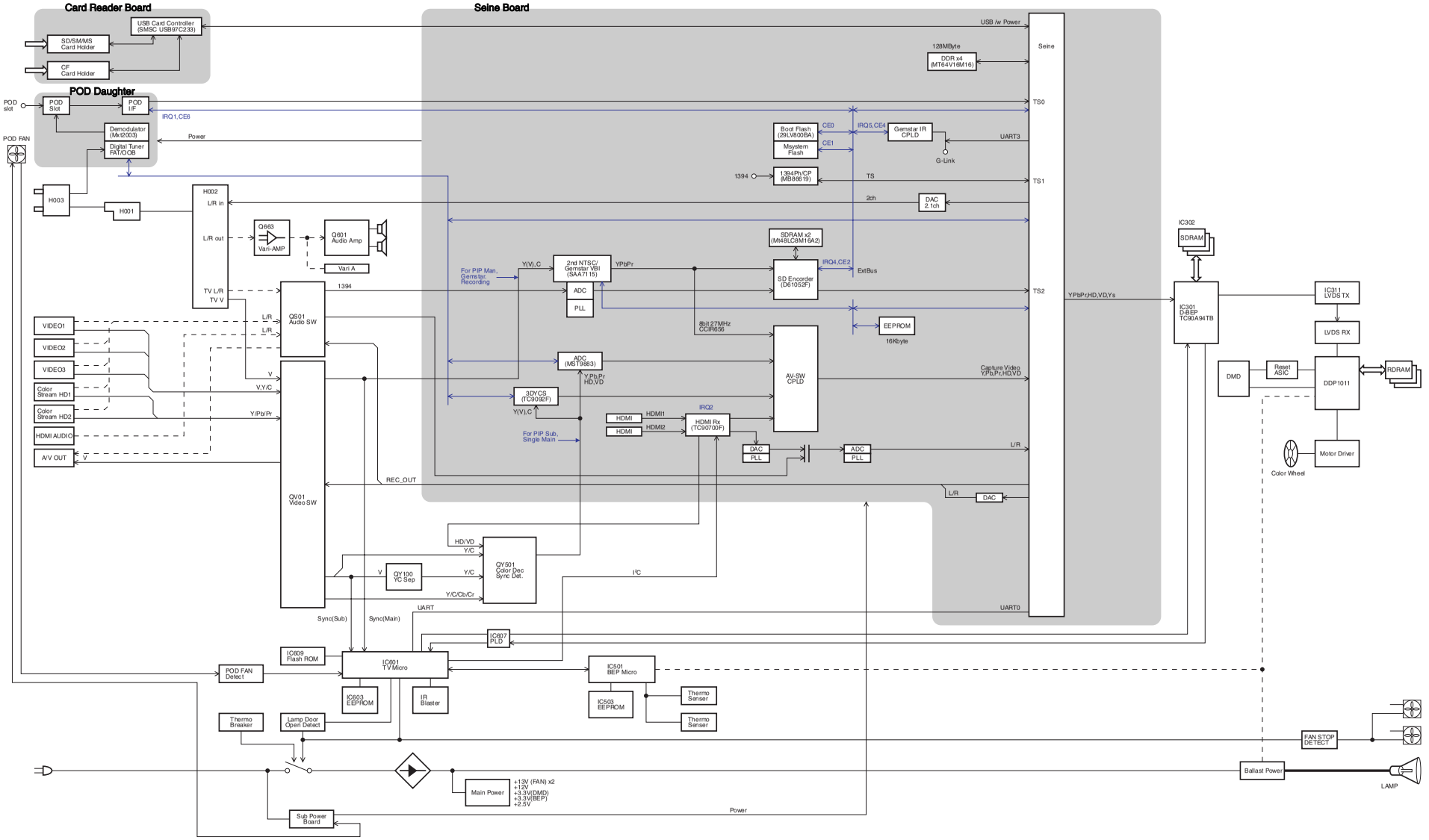
DIGITAL
- (SCALER_INPUT) [SHEET-300] 22/125
- (CAPTURE_INPUT) [SHEET-301] 23/125
- (DDR_SDRAM) [SHEET-302] 24/125
- (SCALER_PLL_US_&_EUROPE) [SHEET-304] 25/125
- (OSD_FOR_NORTH_AMERICA) [SHEET-305] 26/125
- (IIC) [SHEET-306] 27/125
- (SCALER_POWER) [SHEET-307] 28/125
- (LVDS_OUTPUT) [SHEET-308] 29/125
- (LVDS_OUT_CONNECTOR) [SHEET-309] 30/125
- (DC/DCONVERTER) [SHEET-310] 31/125
- (SUB_MICOM_1) [SHEET-500] 32/125
- (SUB_MICOM_2) [SHEET-501] 33/125
- (SUB_MICOM_3) [SHEET-502] 34/125
- (OSD_MICON_4/4) [SHEET-503] 35/125
- (MICON_1/3) [SHEET-600] 36/125
- (MICON_2/3) [SHEET-601] 37/125
- (MICON_3/3) [SHEET-602] 38/125
- (TV_MICON_RESET_I&_FLASH) [SHEET-603] 39/125
- (SYNDETECT) [SHEET-604] 40/125
- (PLD_US_OSD_SYNGENERATOR) [SHEET-605] 41/125
- (IR_BROSTER) [SHEET-606] 42/125
- (CONNECTOR) [SHEET-607] 43/125
- (POWER_CONNECTOR) [SHEET-800] 44/125
- (CONNECTOR_OLE_I/F) [SHEET-803] 45/125
- (SERVICE_CONECTOR_BEP) [SHEET-804] 46/125

SEINE_PJTV
- (RESET_CLOCK_IRG) [SHEET-1] 47/125
- (SLOW_BUS) [SHEET-2] 48/125
- (SLOW_BUS_ADDRESS_REGISTER) [SHEET-3] 49/125
- (SEINE_12C/UART) [SHEET-4] 50/125
- (SEINE_PIO/USB) [SHEET-5] 51/125
- (M-SYSTEM_NAND_FLASHROM) [SHEET-6] 52/125
- (ROM/FLASH) [SHEET-7] 53/125
- (GUNK_PWM-PLD) [SHEET-8] 54/125
- (GLINK_IR-OUT) [SHEET-9] 55/125
- (CLOCK_GENERATOR) [SHEET-10] 56/125
- (TV_MICON_I/F) [SHEET-11] 57/125
- (HOST_BUS_CONNECTOR) [SHEET-13] 58/125
- (SEINE_PCI_BUS) [SHEET-14] 59/125
- (SEINE_VDD/VSS) [SHEET-15] 60/125
- (EJTAG_CONNECTOR) [SHEET-16] 61/125
- (SEINE_TS_I/F) [SHEET-110] 62/125

SEINE_PJTV
- (SEINE_CAPTURE_IN) [SHEET-200] 63/125
- (CPLD-VIDEO_SW) [SHEET-202] 64/125
- (VIDEO_LPF_VBL) [SHEET-203] 65/125
- (VIDEO_LPF_VCD) [SHEET-204] 66/125
- (VIDEO_IN-NTSDECORDER1) [SHEET-205] 67/125
- (VIDEO_IN-NTSDECORDER2) [SHEET-206] 68/125
- (VIDEO_IN-MPEG_ENC1) [SHEET-208] 69/125
- (VIDEO_IN-MPEG_ENC2) [SHEET-209] 70/125
- (VIDEO_IN-MPEG_ENC3) [SHEET-210] 71/125
- (VIDEO_IN-MPEG_ENC4) [SHEET-211] 72/125
- (MPEG_AUDIO_PLL) [SHEET-212] 73/125
- (VIDEO_IN-CAPTURE_AMP) [SHEET-220] 74/125
- (VIDEO_IN-CAPTURE_LPF) [SHEET-221] 75/125
- (VIDEO_IN-3CH_ABC) [SHEET-222] 76/125
- (VIDEO_IN-CAPTURE_HD/VD) [SHEET-223] 77/125
- (VIDEO_IN-3D_Y/C) [SHEET-224] 78/125
- (VIDEO_IN-HDMI-LINK/12C) [SHEET-230] 79/125
- (VIDEO_IN-HDMI_P2-VIDEO/AUDIO) [SHEET-231] 80/125
- (VIDEO_IN-HDMI_P3-PWR/AUDIO) [SHEET-232] 81/125
- (HDMI_AUDIO_PLL) [SHEET-233] 82/125
- (VIDEO_IN-VIDEO_POWER) [SHEET-250] 83/125
- (AUDIO_POWER) [SHEET-300] 84/125
- (SEINE_AUDIO_I/F) [SHEET-301] 85/125
- (AUDIO_ADC/DAC) [SHEET-302] 86/125
- (AUDIO_PLL/DAC) [SHEET-303] 87/125
- (AUDIO_DAC-01CH_OUT) [SHEET-304] 88/125
- (AUDIO_TV-IN/OUT) [SHEET-305] 89/125
- (AUDIO_VTR_OUT) [SHEET-306] 90/125
- (AUDIO_01CH_OUT_MIX) [SHEET-307] 91/125
- (AUDIO_CONT) [SHEET-308] 92/125
- (HDMI_AUDIO_DAC) [SHEET-310] 93/125
- (HDMI_AUDIO_OUT) [SHEET-311] 94/125
- (MPEG_AUDIO_IN) [SHEET-320] 95/125
- (MPEG_AUDIO_ADC) [SHEET-321] 96/125
- (IEEE1394_1) [SHEET-400] 97/125
- (IEEE1394_2) [SHEET-401] 98/125
- (IEEE1394_CPLD) [SHEET-402] 99/125
- (VIDEO_OUT-SEINE_DIGITAL_OUT) [SHEET-700] 100/125
- (VIDEO_OUT-SYNOUT) [SHEET-701] 101/125
- (VIDEO_OUT-SEINE_BEP_IF) [SHEET-702] 102/125
- (VIDEO_OUT-SEINE_BEP_IF-2) [SHEET-703] 103/125
- (VIDEO_OUT-SEINE_BEP_IF-3) [SHEET-704] 104/125
- (VIDEO_OUT-SEINE_DAOUT) [SHEET-710] 105/125
- (VIDEO_OUT-HD_OUT_LPF) [SHEET-711] 106/125
- (VIDEO_OUT-HD_OUT_DRIVER) [SHEET-712] 107/125
- (VIDEO_OUT-DOWN_CON_OUT_DRIVER) [SHEET-715] 108/125
- (DDR_SDRAM_I/F) [SHEET-801] 109/125
- (DDR_SDRAM_1) [SHEET-802] 110/125
- (DDR_SDRAM_2) [SHEET-803] 111/125
- (DDR_SDRAM_TERMINATOR) [SHEET-804] 112/125
- (DDR_SDRAM_DDR_POWER/VREF/VTT) [SHEET-805] 113/125
- (VCXO) [SHEET950] 114/125
- (TERMINAL-SIGNAL_CONNECTOR) [SHEET-960] 115/125
- (TERMINAL-POWER_CONNECTOR) [SHEET-961] 116/125

POD
- (POD_CONNECTOR) [SHEET-1] 117/125
- (POD_IF-CPLD_XILINK) [SHEET-3] 118/125
- (POD_IF-SLOWBUS) [SHEET-4] 119/125
- (POD_IF-POWER) [SHEET-5] 120/125
- (POD_IF) [SHEET-6] 121/125
- (DB_POD_IF) [SHEET-8] 122/125
- (TUNER_DEMO) [SHEET-200] 123/125
- (TUNER_DEMO-NXT2003_POWER) [SHEET-201] 124/125
- (TUNER_DEMO-NXT2003) [SHEET-202] 125/125

CIRCUIT BLOCK DIAGRAM



TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

TOSHIBA

FILE NO. 020-200423
REVISION 2

CIRCUIT DIAGRAMS

Projection Television

52HMX94
62HMX94

DOCUMENT CREATED IN JAPAN, Jan., 2005

SCHEMATIC DIAGRAM

MODEL : 52HMX94/62HMX94

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(AUDIO_SELECT) [SHEET-2/6] 2/125
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MAIN_POWER 15/125
MULTI_CARD — (1/4) [SHEET-1/4] 16/125
(2/4) [SHEET-2/4] 17/125
(3/4) [SHEET-3/4] 18/125
(4/4) [SHEET-4/4] 19/125
SUB_POWER — (1/2) [SHEET-1/2] 20/125
(2/2) [SHEET-2/2] 21/125
DIGITAL — (SCALER_INPUT) [SHEET-300] 22/125
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SEINE_PJTV — (RESET_CLOCK_IRG) [SHEET-1] 47/125
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(SLOW_BUS_ADDRESS_REGISTER) [SHEET-3] 49/125
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(M-SYSTEM_NAND_FLASHROM) [SHEET-6] 52/125
(ROM/FLASH) [SHEET-7] 53/125
(GUNK_PWM-PLD) [SHEET-8] 54/125
(GLINK_IR-OUT) [SHEET-9] 55/125
(CLOCK_GENERATOR) [SHEET-10] 56/125
(TV_MICON_I/F) [SHEET-11] 57/125
(HOST_BUS_CONNECTOR) [SHEET-13] 58/125
(SEINE_PCI_BUS) [SHEET-14] 59/125
(SEINE_VDD/VSS) [SHEET-15] 60/125
(EJTAG_CONNECTOR) [SHEET-16] 61/125
(SEINE_TS_I/F) [SHEET-110] 62/125

SEINE_PJTV
- (SEINE_CAPTURE_IN) [SHEET-200] 63/125
- (CPLD-VIDEO_SW) [SHEET-202] 64/125
- (VIDEO_LPF_VBL) [SHEET-203] 65/125
- (VIDEO_LPF_VCD) [SHEET-204] 66/125
- (VIDEO_IN-NTSDECORDER1) [SHEET-205] 67/125
- (VIDEO_IN-NTSDECORDER2) [SHEET-206] 68/125
- (VIDEO_IN-MPEG_ENC1) [SHEET-208] 69/125
- (VIDEO_IN-MPEG_ENC2) [SHEET-209] 70/125
- (VIDEO_IN-MPEG_ENC3) [SHEET-210] 71/125
- (VIDEO_IN-MPEG_ENC4) [SHEET-211] 72/125
- (MPEG_AUDIO_PLL) [SHEET-212] 73/125
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- (VIDEO_IN-HDMI-LINK/12C) [SHEET-230] 79/125
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- (VIDEO_IN-HDMI_P3-PWR/AUDIO) [SHEET-232] 81/125
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- (AUDIO_TV-IN/OUT) [SHEET-305] 89/125
- (AUDIO_VTR_OUT) [SHEET-306] 90/125
- (AUDIO_01CH_OUT_MIX) [SHEET-307] 91/125
- (AUDIO_CONT) [SHEET-308] 92/125
- (HDMI_AUDIO_DAC) [SHEET-310] 93/125
- (HDMI_AUDIO_OUT) [SHEET-311] 94/125
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- (VIDEO_OUT-SEINE_BEP_IF-2) [SHEET-703] 103/125
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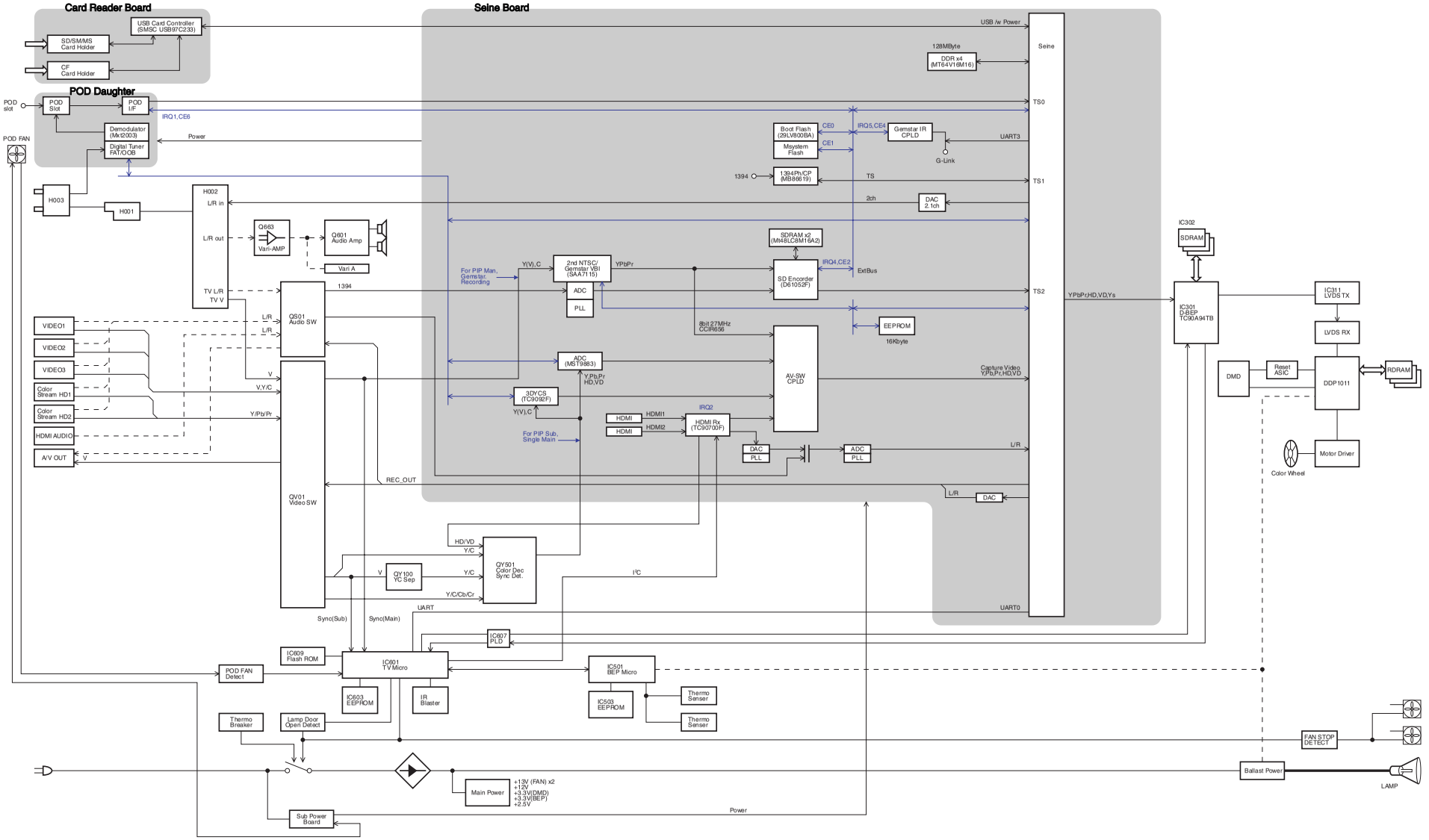
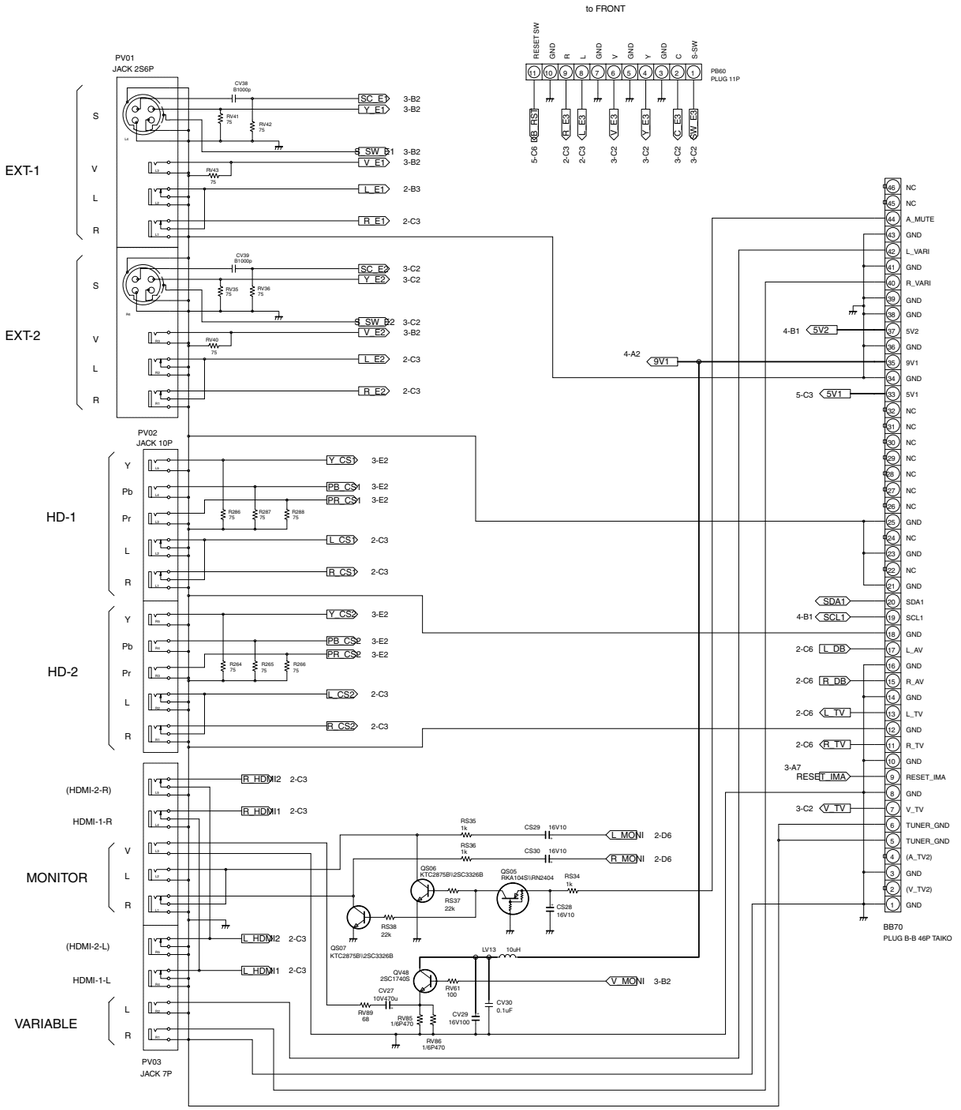
- (DDR_SDRAM_2) [SHEET-803] 111/125
- (DDR_SDRAM_TERMINATOR) [SHEET-804] 112/125
- (DDR_SDRAM_DDR_POWER/VREF/VTT) [SHEET-805] 113/125
- (VCXO) [SHEET950] 114/125
- (TERMINAL-SIGNAL_CONNECTOR) [SHEET-960] 115/125
- (TERMINAL-POWER_CONNECTOR) [SHEET-961] 116/125

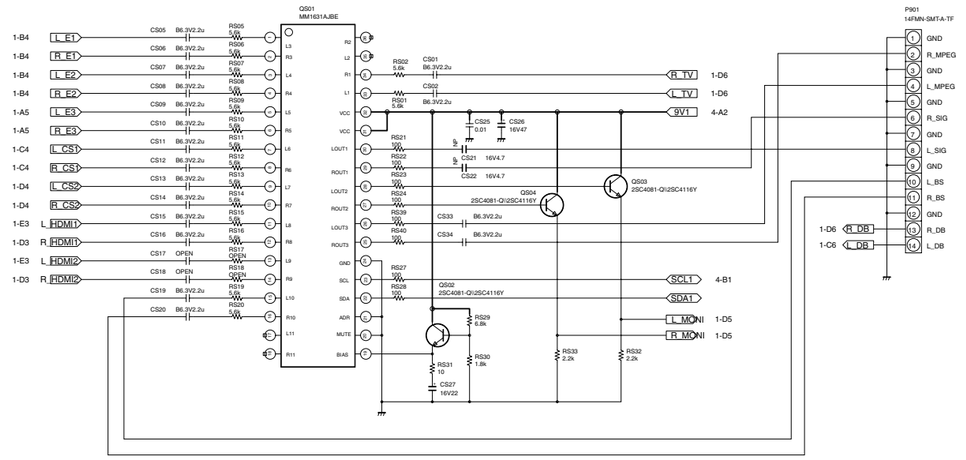
POD
- (POD_CONNECTOR) [SHEET-1] 117/125
- (POD_IF-CPLD_XILINK) [SHEET-3] 118/125
- (POD_IF-SLOWBUS) [SHEET-4] 119/125
- (POD_IF-POWER) [SHEET-5] 120/125
- (POD_IF) [SHEET-6] 121/125
- (DB_POD_IF) [SHEET-8] 122/125
- (TUNER_DEMO) [SHEET-200] 123/125
- (TUNER_DEMO-NXT2003_POWER) [SHEET-201] 124/125
- (TUNER_DEMO-NXT2003) [SHEET-202] 125/125

CIRCUIT BLOCK DIAGRAM

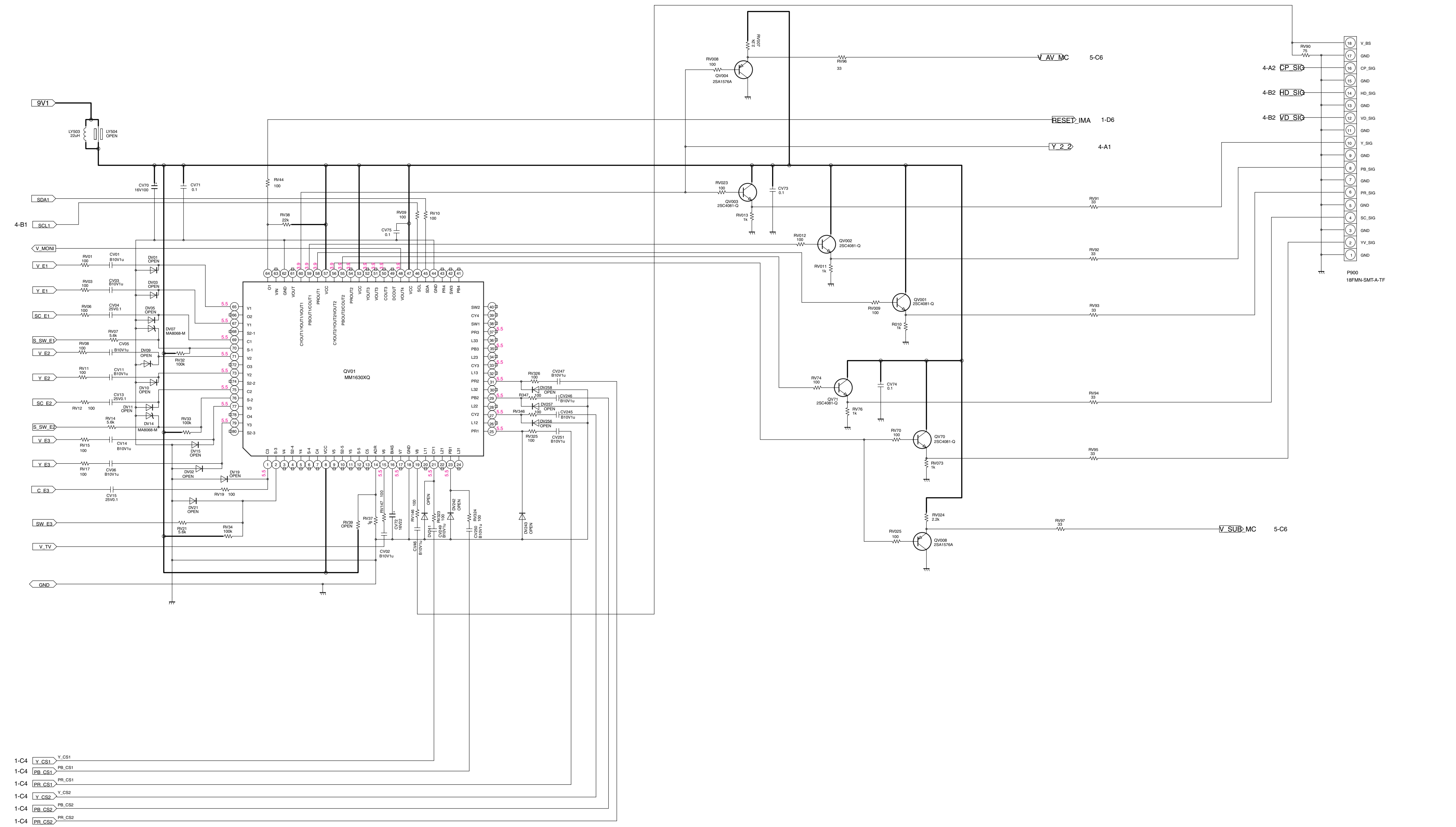




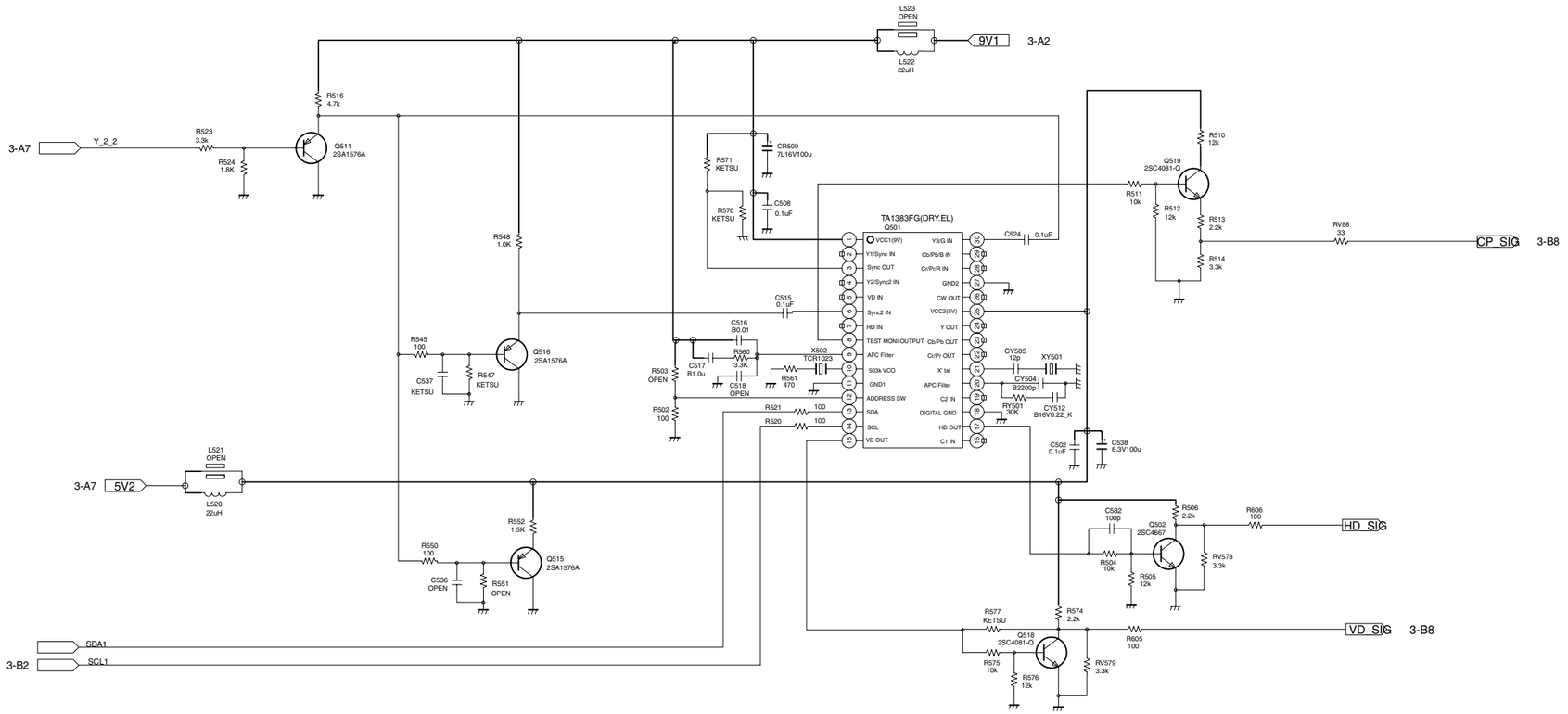
52HMX94/62HMX94
BACK_AV (1/6)
[SHEET-1/6]



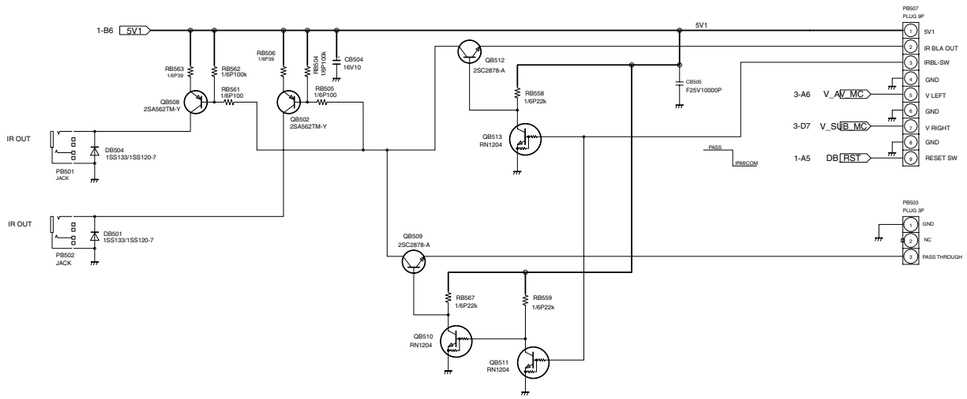
52HMX94/62HMX94
BACK_AV (AUDIO_SELECT)
[SHEET-2/6]


9V1
LY503 22uH
LY504 OPEN
CV70 16V100
CV71 0.1
SDA1
4-B1 SCL1
V_MONI
V_E1
Y_E1
SC_E1
S_SW_E1
V_E2
Y_E2
SC_E2
S_SW_E2
V_E3
Y_E3
C_E3
SW_E3
V_TV
GND
DV07 MA8068-M
DV14 MA8068-M
QV01 MM1630XQ
RV44 100
RV38 22k
RV09 100
RV10 100
CV75 0.1
V_AV_MC 5-C6
RESET_IMA 1-D6
Y_2_2 4-A1
QV004 2SA1576A
QV003 2SC4081-Q
QV002 2SC4081-Q
QV001 2SC4081-Q
QV71 2SC4081-Q
QV70 2SC4081-Q
QV008 2SA1576A
V_SUB_MC 5-C6
4-A2 CP_SIG
4-B2 HD_SIG
4-B2 VD_SIG
V_BS
CP_SIG
HD_SIG
VD_SIG
Y_SIG
PB_SIG
PR_SIG
SC_SIG
YV_SIG
P900
18FMN-SMT-A-TF
1-C4 Y_CS1
1-C4 PB_CS1
1-C4 PR_CS1
1-C4 Y_CS2
1-C4 PB_CS2
1-C4 PR_CS2

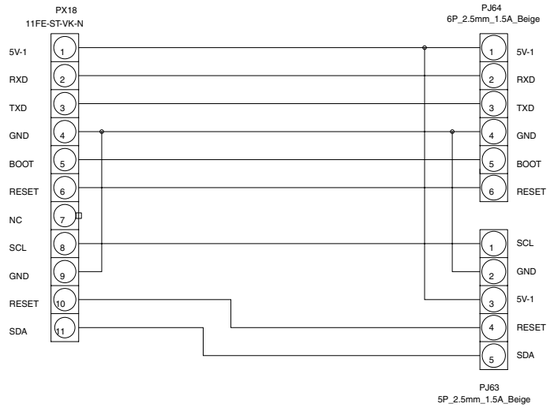
52HMX94/62HMX94
BACK_AV (VIDEO_SELECT1)
[SHEET-3/6]

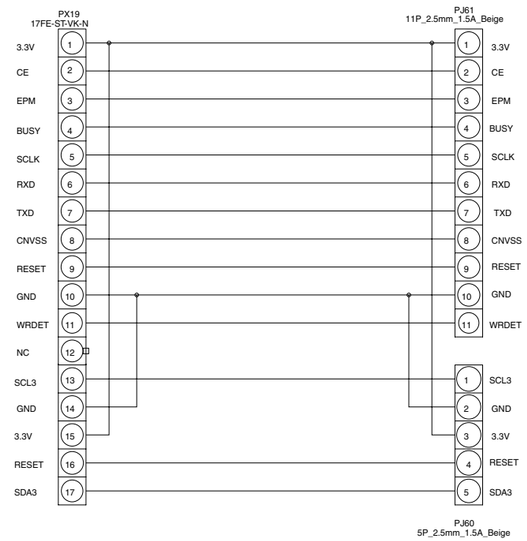


52HMX94/62HMX94
BACK_AV (VIDEO_SELECT2)
[SHEET-4/6]

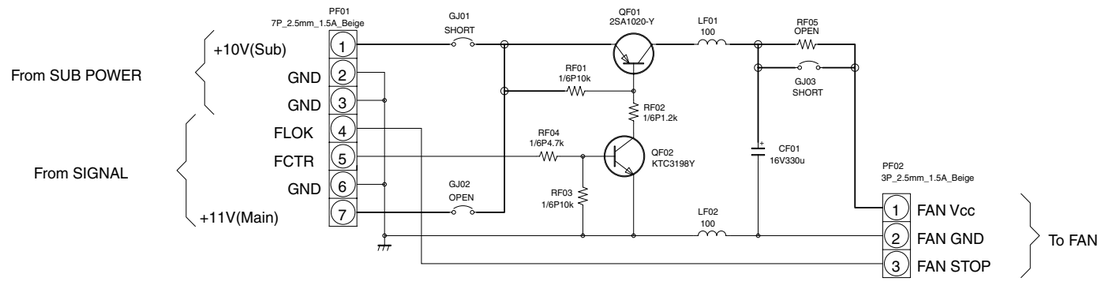


52HMX94/62HMX94
BACK_AV (IR_BLASTER)
[SHEET-5/6]

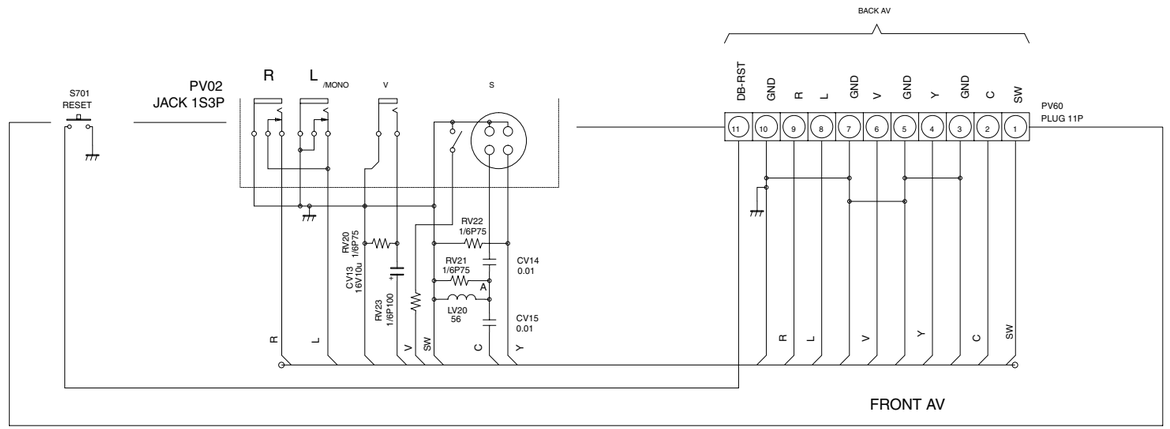


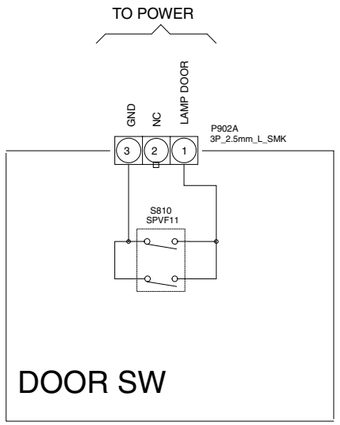


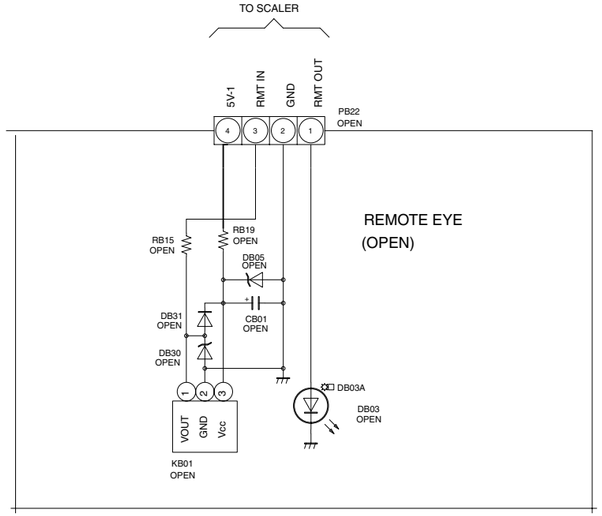
52HMX94/62HMX94
BACK_AV (WRIGHT_CONNECTION)
[SHEET-6/6]



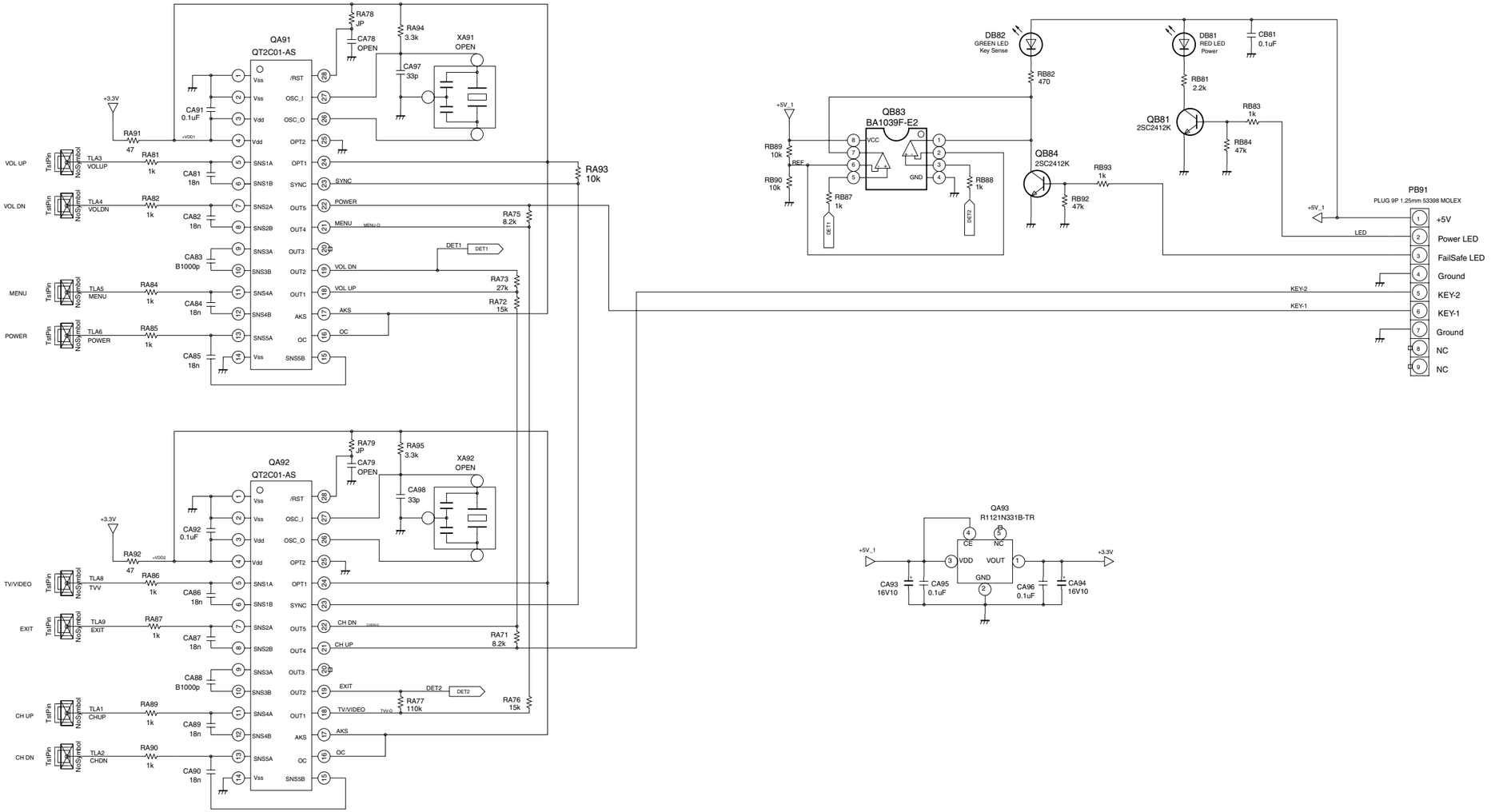
52HMX94/62HMX94
FAN_CONTROL



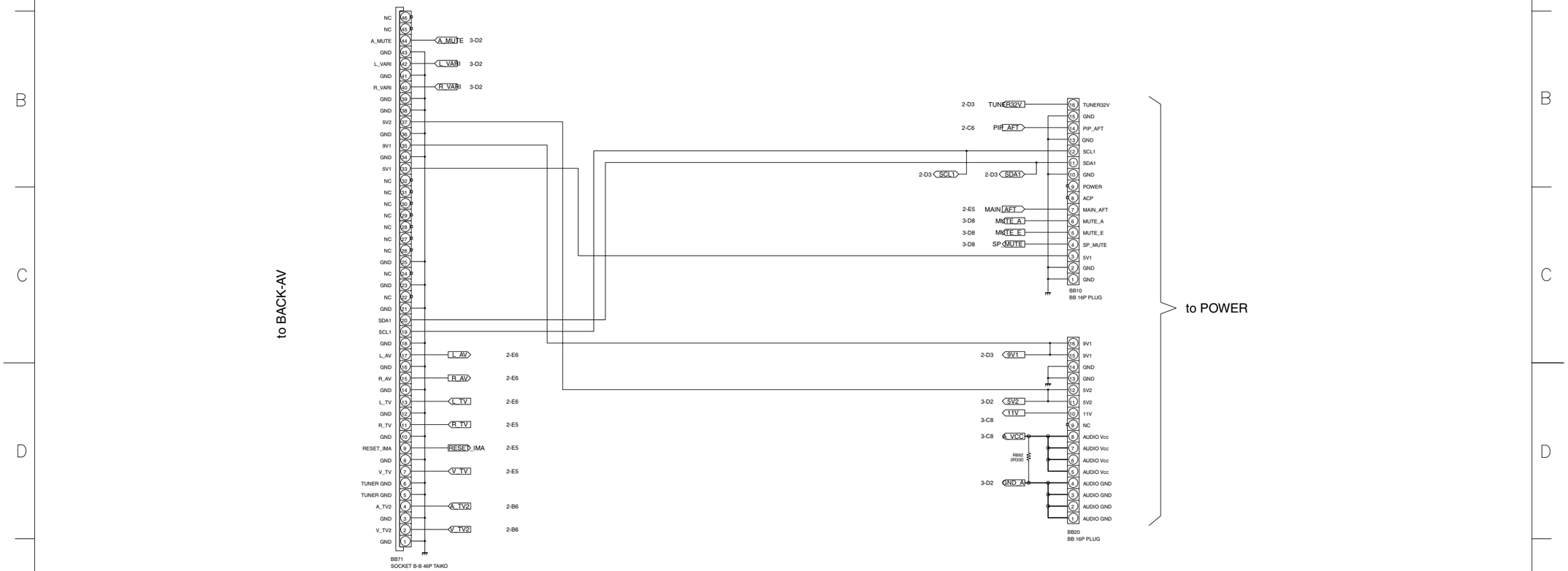




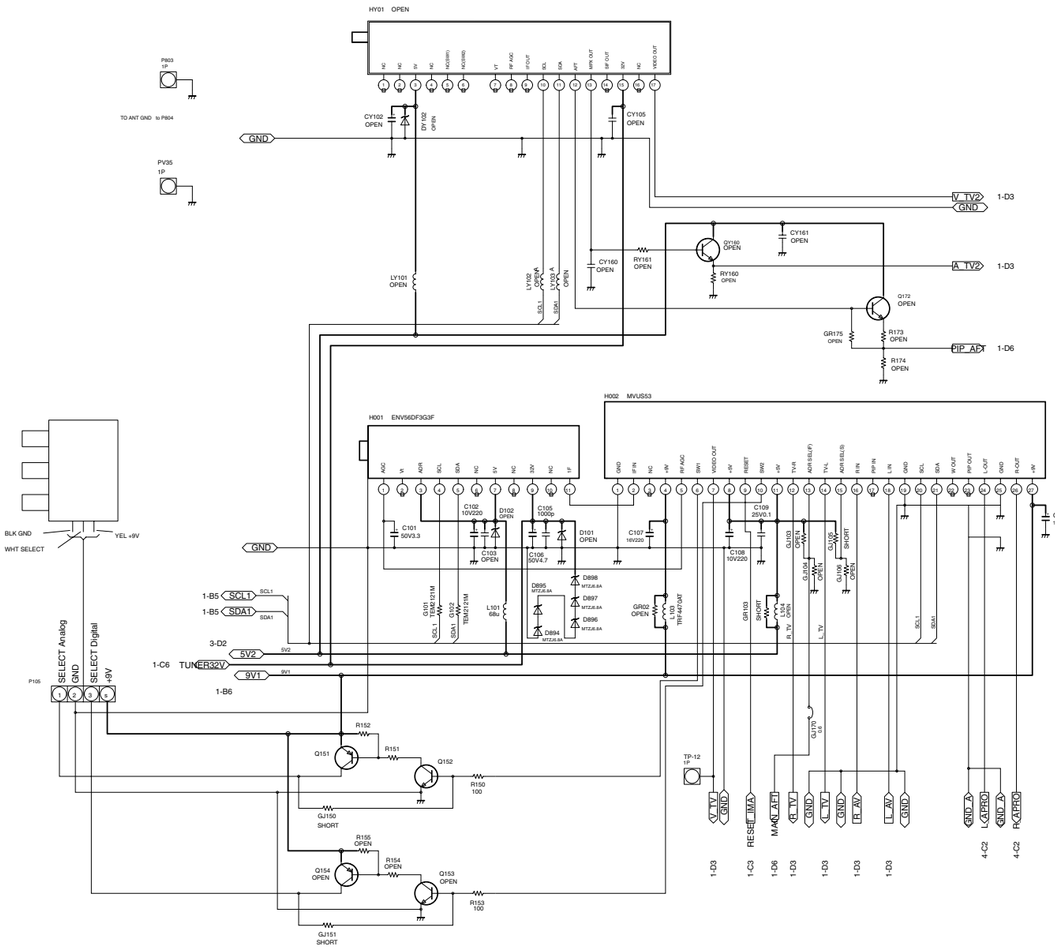
52HMX94/62HMX94
FRONT_AV



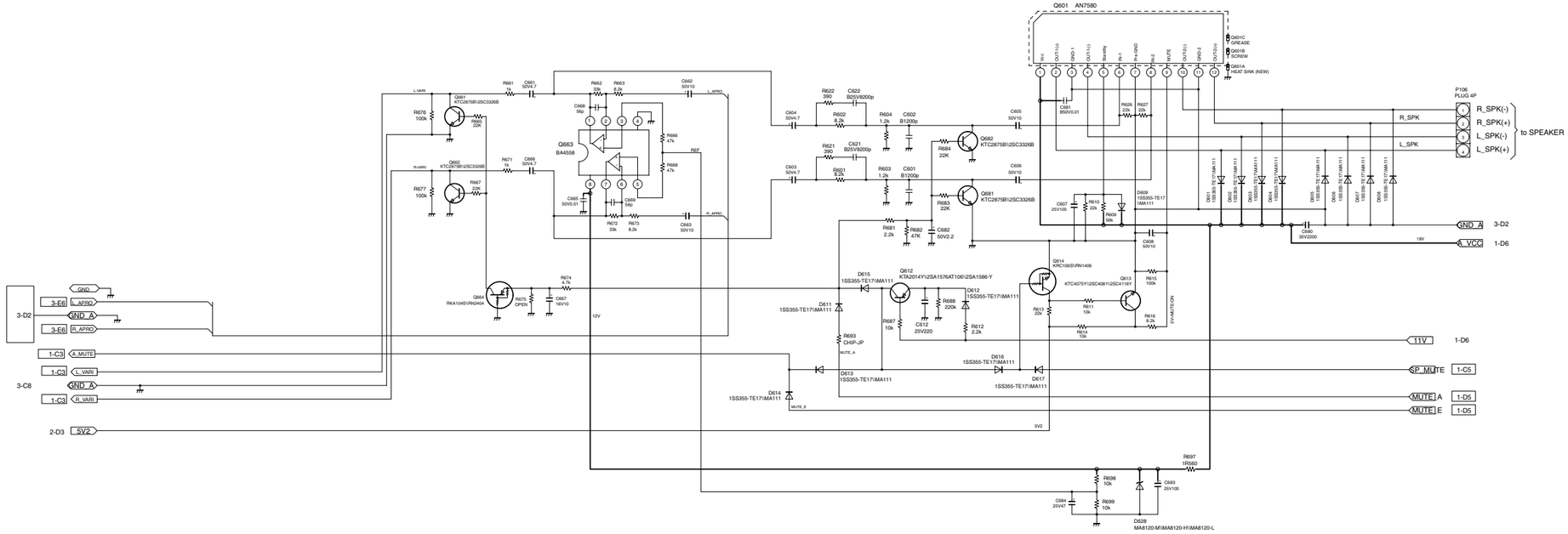
52HMX94/62HMX94
FRONT_KEY (TOUCH_CONTROL_PANEL)



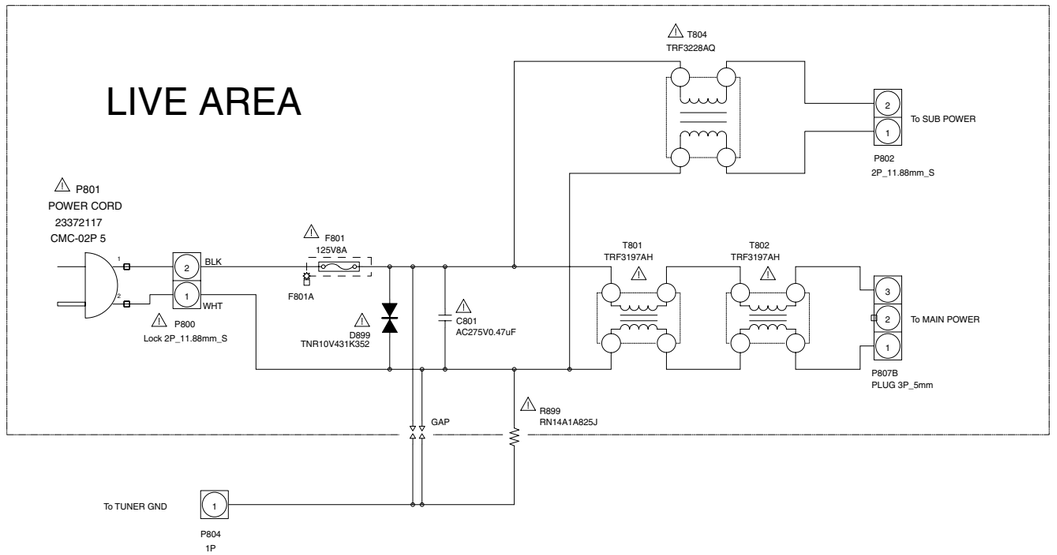
52HMX94/62HMX94
IF_AUDIO (IF/AUDIO)
[SHEET-1/4]



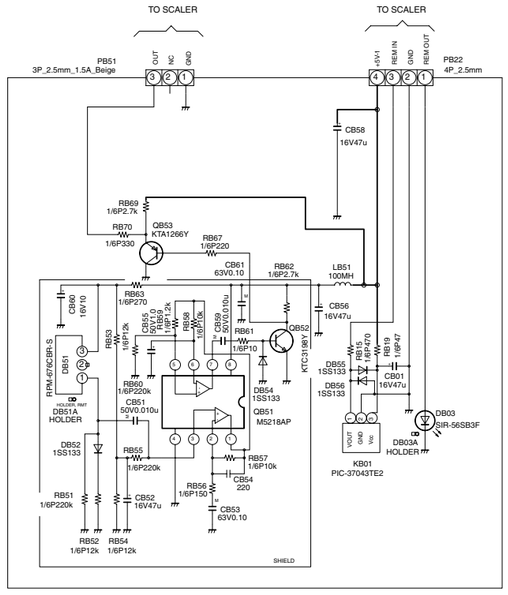
52HMX94/62HMX94
IF_AUDIO (IF/TIF)
[SHEET-2/4]



52HMX94/62HMX94
IF_AUDIO (SOUND)
[SHEET-3/4]



52HMX94/62HMX94
IF_AUDIO (AIN)
[SHEET-4/4]



52HMX94/62HMX94
IR_BLA_OUT

LIVE AREA

SUB POWER

AUDIO

DMD FAN

EXHAUST FAN

DOOR SW

FAN STOP

BALLAST POWER

12V DMD

3.4V DMD

2.6V DMD

9V-1

5V-2

G-Hyper.Dbep

G-Hyper.Dbep

DMD

DMD

IF AUDIO

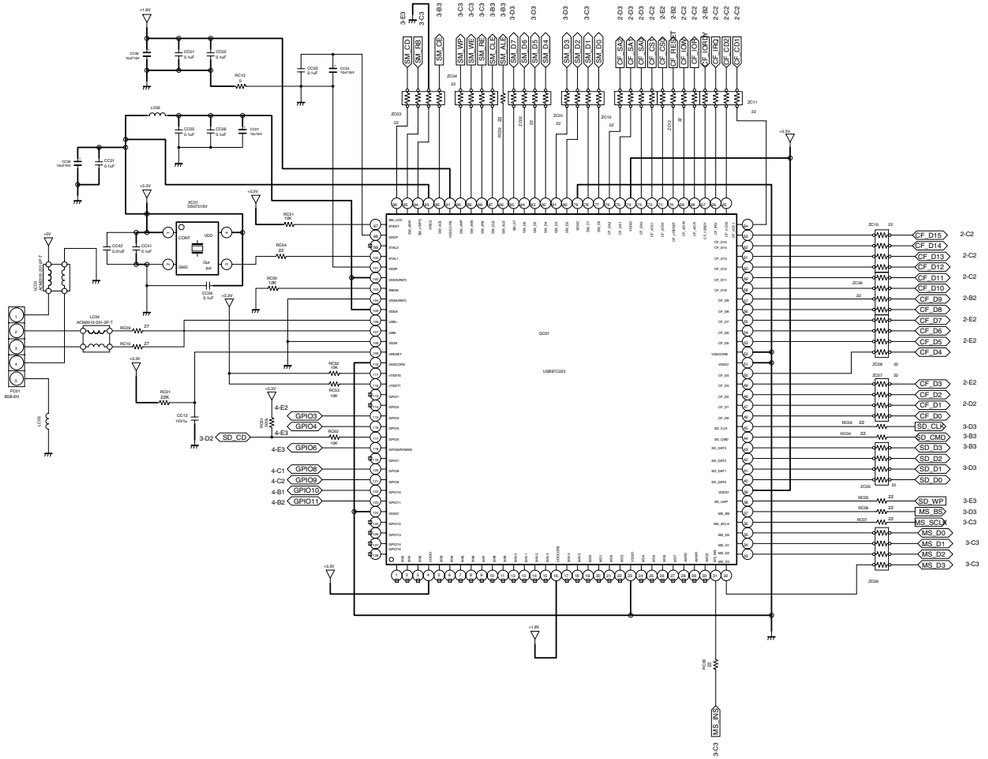
IF AUDIO

HDMI

FAN CONT

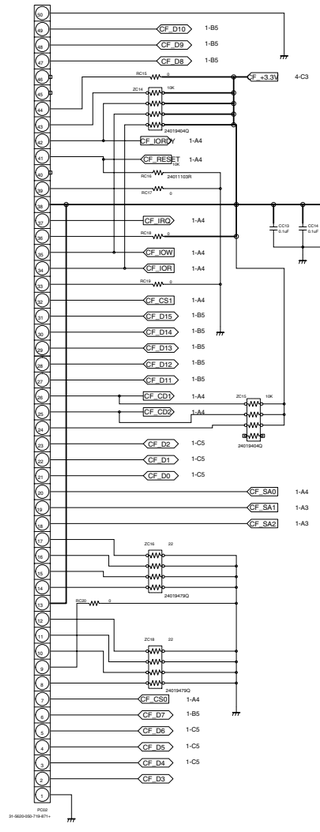
G-Hyper.Dbep

52HMX94/62HMX94
MAIN_POWER



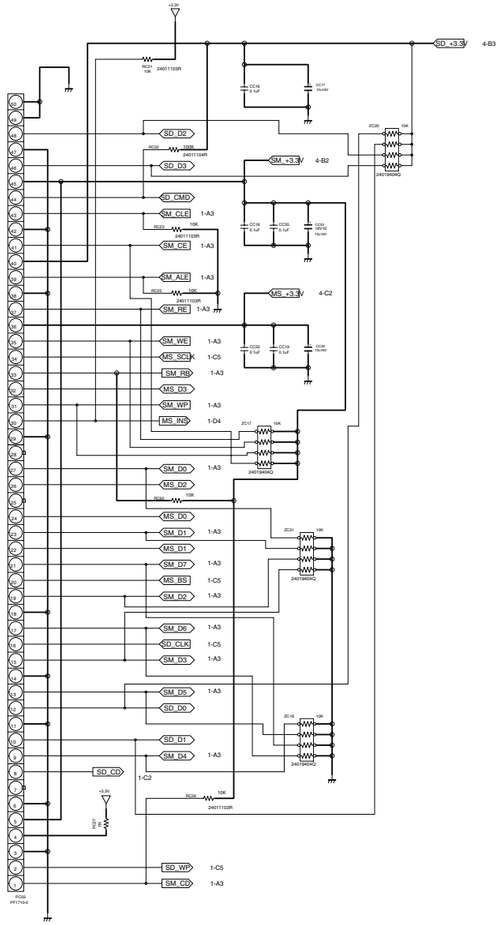
52HMX94/62HMX94
MULTI_CARD (1/4)
[SHEET-1/4]

31-5620-050-719-871+

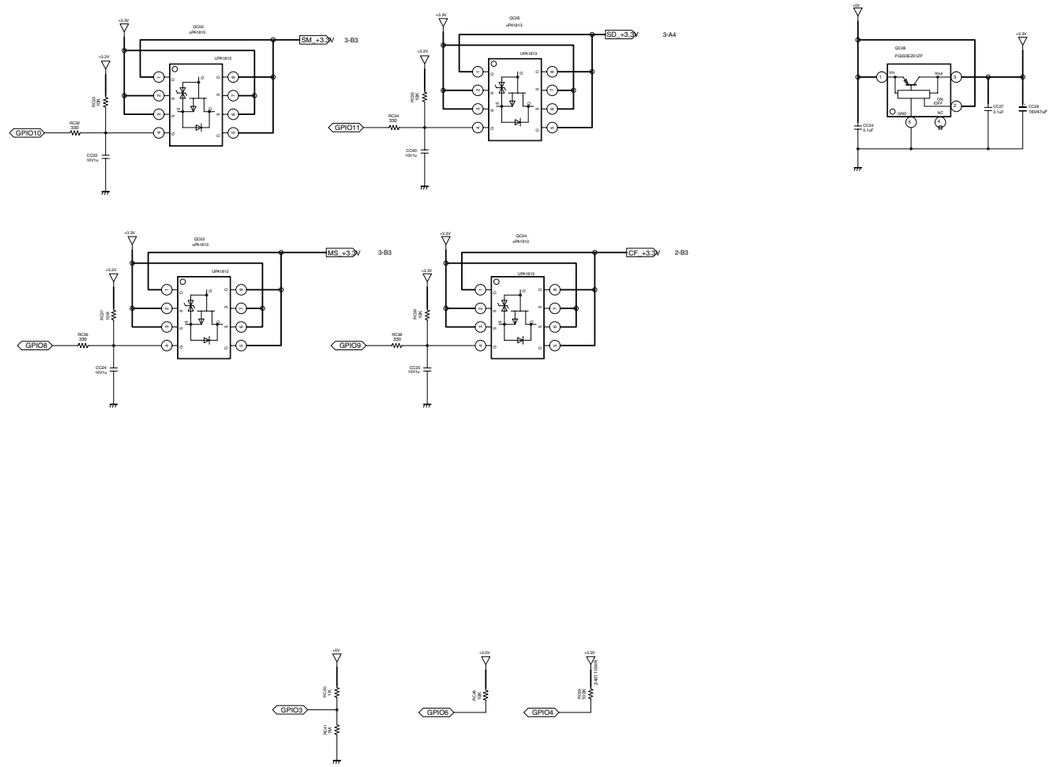


52HMX94/62HMX94
MULTI_CARD (2/4)
[SHEET-2/4]

PF1710-0



52HMX94/62HMX94
MULTI_CARD (3/4)
[SHEET-3/4]



52HMX94/62HMX94
MULTI_CARD (4/4)
[SHEET-4/4]

From DEF/POWER

PE01
PLUG 3P_5mm

GE04 SHORT
GE03 SHORT
TE02 OPEN
GE01 SHORT
GE02 SHORT

CE01 AC275V0.22u
CE01Z
TE01 TRF3228AQ
CE07 AC250V470P
CE08 AC250V470P
CE02 OPEN
DE01 D3SB60
CE04 250V4700pF
CE05 250V4700pF
FE01 125V_2A
CE10 200V560u

QE01 STR-G6653
QE01A HEAT SINK
QE01B
RE10 1W 223J
LE11 TEM2011
CE16 B1000p
DE18 AK04
CE15 2KV330p-F
CE13 1500V1500p
DE19 MTZJ27B
CE12 250V100
DE15 FR105-FL
LE12 TEM2011
RE18 1/2R100
DE13 1SS133
RE17 1/6P1.5k
LE13 TEM2011
RE13 1/2R6.8Ω
RE14 2R33
RE15 2R33
CE14 M470
DE12 1SS133
RE11 1R0.56
RE12 1R0.56
DE10 MTZJ5.6B
CE11 50V3300p
RE16 1/6P6.8k

TE60 TPW3547AS

LE72 TEM2011
DE72 RLZ2 LF-C1
CE72 500V330
CE82 100V47
40V

FE72 125V_1A
CE75 500V330
LE75 TEM2011
DE75A HEAT SINK
DE75B
DE75 FML-G12S
CE85 16V2200u
10V

FE75 125V_4A
CE73 500V330
DE73 YG801C04RF119
LE73 TEM2011
DE73A HEAT SINK
DE73B
CE83 16V1000u
CE88 16V1000u
6.5V

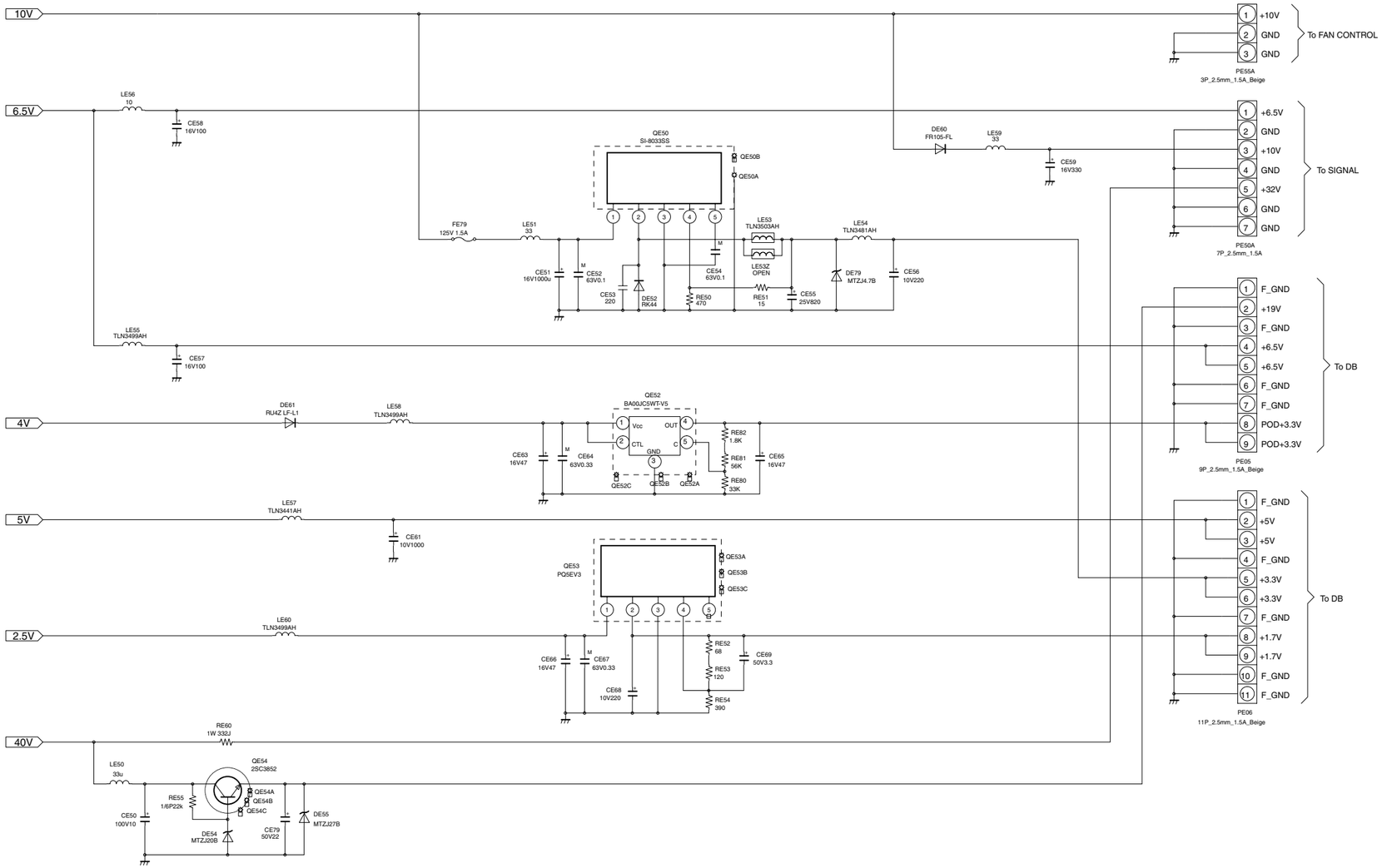
FE73 125V_5A
LE74 TEM2011
DE74 YG801C04RF119
DE74B
DE74A HEAT SINK
CE74 500V330
CE84 10V1000
CE87 10V1000
4V

FE74 125V_5A
FE76 125V_5A
CE76 500V330
LE76 TEM2011
DE76A HEAT SINK
DE76B
DE76 YG801C04RF119
CE86 6.3V3300u
2.5V

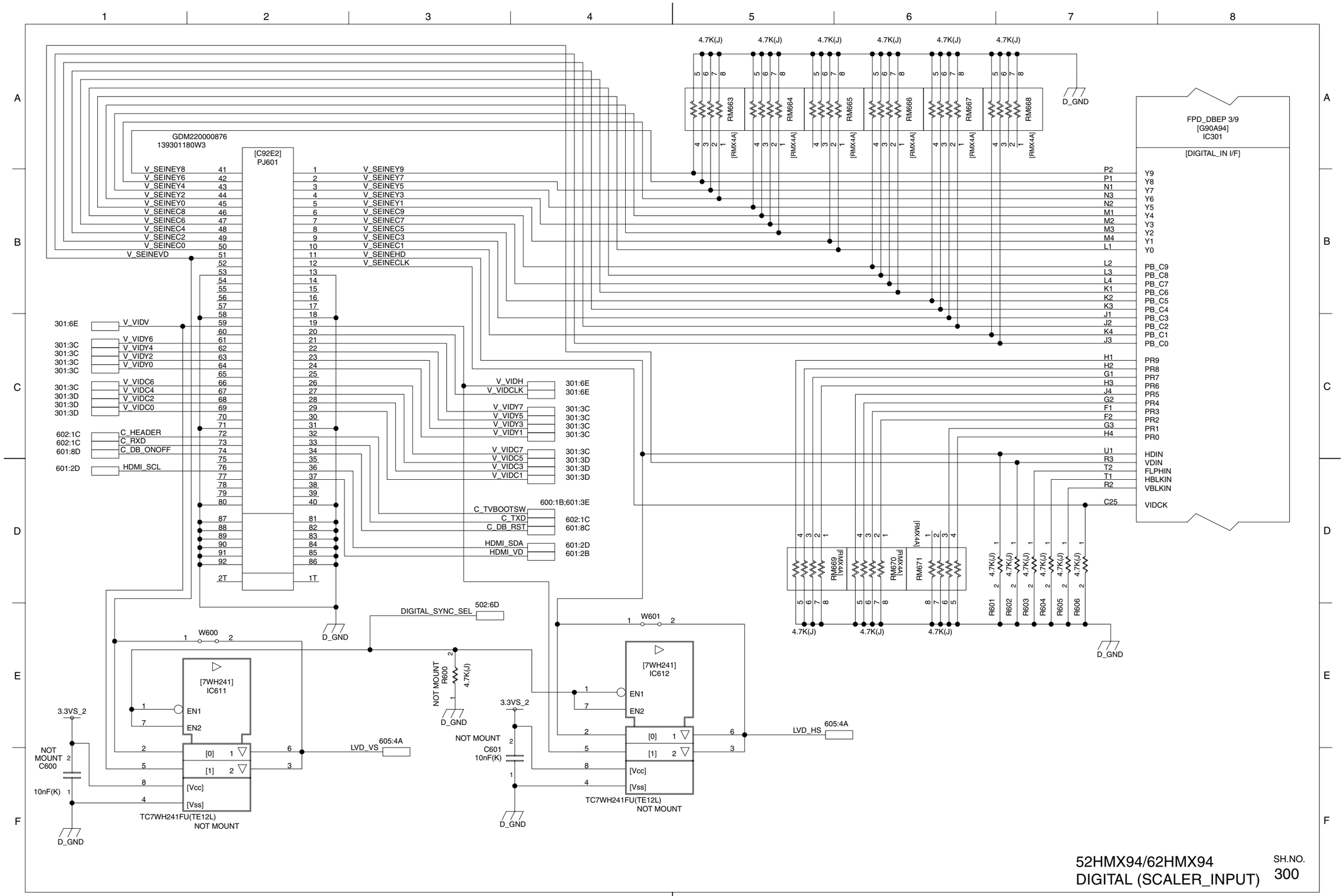
FE77 125V_5A
CE71 500V330
LE71 TEM2011
DE71A HEAT SINK
DE71B
DE71 YG801C04RF119
CE81 16V1500u
CE80 16V1500u
5V

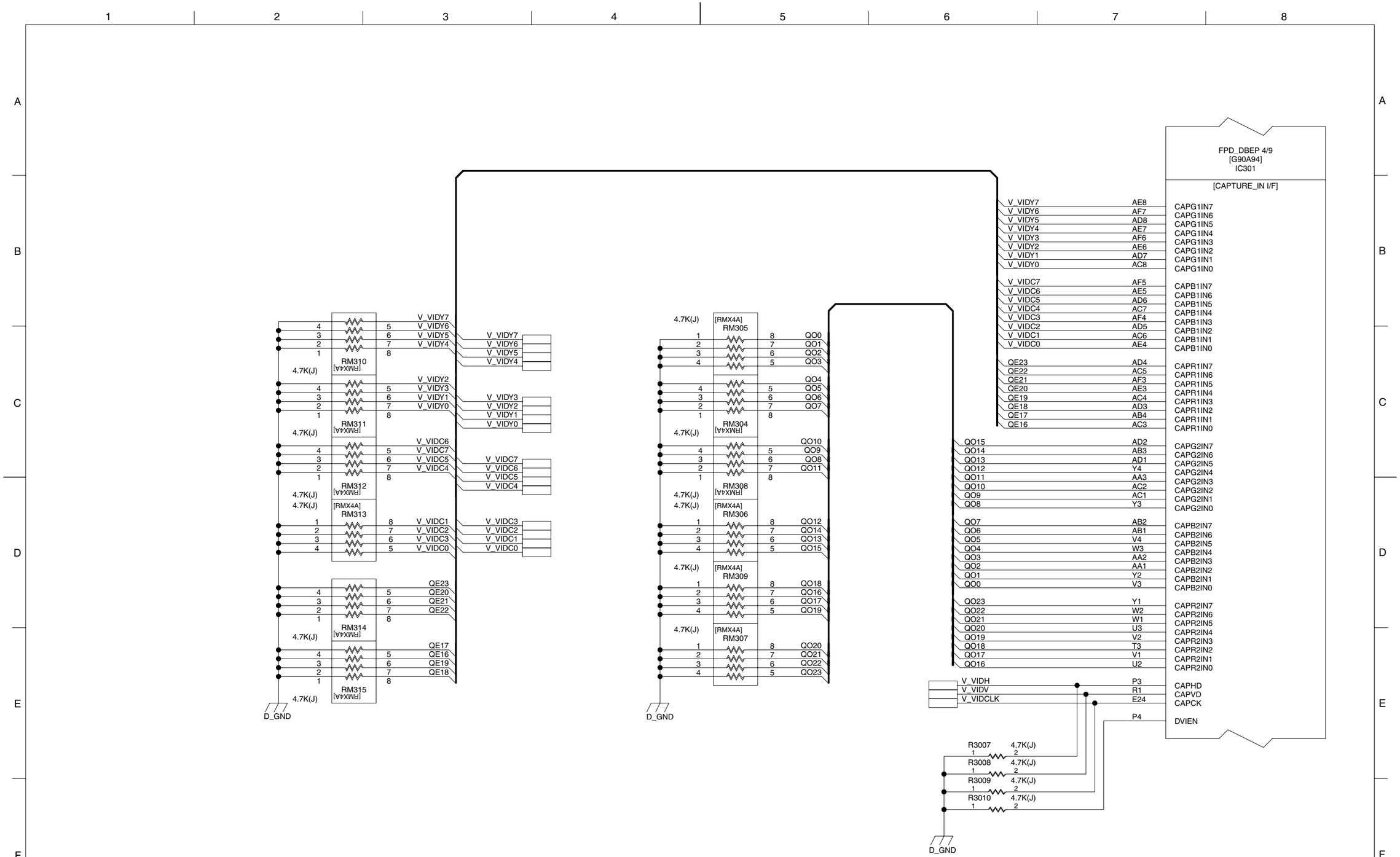
QE05 PS2581L(D)
RE40 1/6P470
RE48 1/6P2.2k
CE43 63V0.10
RE43 1/6P1k
RE45 820
RE44 6.8K
RE46 6.8K
QE40 NJM431L
CE17 63V0.10
RE22 1/6P1k
DE14 1SS133
CE09 AC250V470P

52HMX94/62HMX94
SUB_POWER (1/2)
[SHEET-1/2]

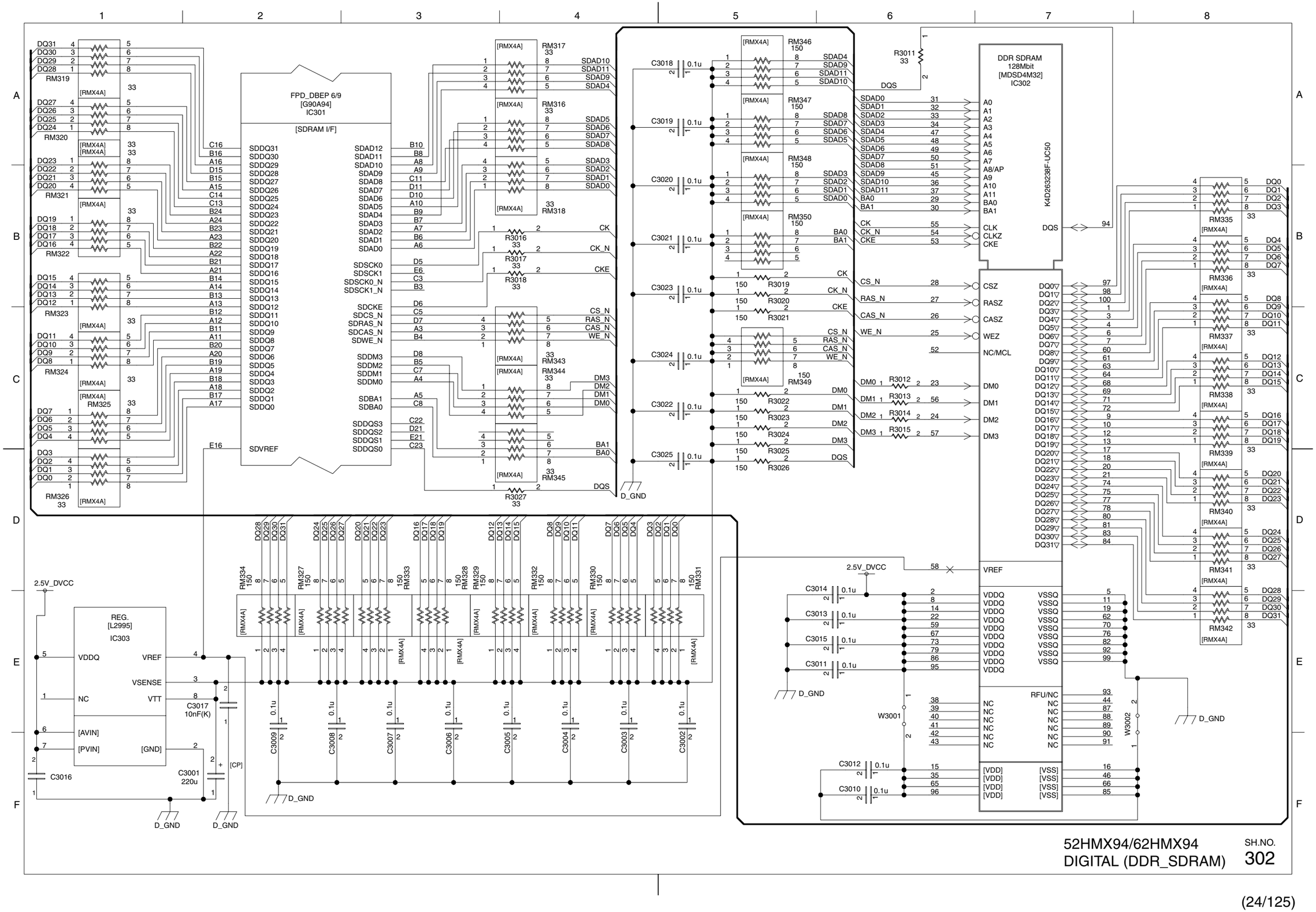


52HMX94/62HMX94
SUB_POWER (2/2)
[SHEET-2/2]


GDM220000876
139301180W3
[C92E2]
PJ601
V_SEINEY8
V_SEINEY6
V_SEINEY4
V_SEINEY2
V_SEINEY0
V_SEINEC8
V_SEINEC6
V_SEINEC4
V_SEINEC2
V_SEINEC0
V_SEINEVD
V_SEINEY9
V_SEINEY7
V_SEINEY5
V_SEINEY3
V_SEINEY1
V_SEINEC9
V_SEINEC7
V_SEINEC5
V_SEINEC3
V_SEINEC1
V_SEINEHD
V_SEINECLK
4.7K(J)
RM663
RM664
RM665
RM666
RM667
RM668
[RMX4A]
D_GND
FPD_DBEP 3/9
[G90A94]
IC301
[DIGITAL_IN I/F]
P2 Y9
P1 Y8
N1 Y7
N3 Y6
N2 Y5
M1 Y4
M2 Y3
M3 Y2
M4 Y1
L1 Y0
L2 PB_C9
L3 PB_C8
L4 PB_C7
K1 PB_C6
K2 PB_C5
K3 PB_C4
J1 PB_C3
J2 PB_C2
K4 PB_C1
J3 PB_C0
H1 PR9
H2 PR8
G1 PR7
H3 PR6
J4 PR5
G2 PR4
F1 PR3
F2 PR2
G3 PR1
H4 PR0
U1 HDIN
R3 VDIN
T2 FLPHIN
T1 HBLKIN
R2 VBLKIN
C25 VIDCK
301:6E V_VIDV
301:3C V_VIDY6
301:3C V_VIDY4
301:3C V_VIDY2
301:3C V_VIDY0
301:3C V_VIDC6
301:3D V_VIDC4
301:3D V_VIDC2
301:3D V_VIDC0
602:1C C_HEADER
602:1C C_RXD
601:8D C_DB_ONOFF
601:2D HDMI_SCL
V_VIDH
V_VIDCLK
301:6E
301:6E
V_VIDY7
V_VIDY5
V_VIDY3
V_VIDY1
301:3C
301:3C
301:3C
301:3C
V_VIDC7
V_VIDC5
V_VIDC3
V_VIDC1
301:3C
301:3D
301:3D
301:3D
600:1B;601:3E
C_TVBOOTSW
C_TXD
C_DB_RST
602:1C
601:8C
HDMI_SDA
HDMI_VD
601:2D
601:2B
2T
1T
D_GND
DIGITAL_SYNC_SEL
502:6D
W600
W601
NOT MOUNT
R600
4.7K(J)
[7WH241]
IC611
[7WH241]
IC612
EN1
EN2
[0]
[1]
[Vcc]
[Vss]
3.3VS_2
NOT MOUNT
C600
10nF(K)
NOT MOUNT
C601
10nF(K)
LVD_VS
605:4A
LVD_HS
605:4A
TC7WH241FU(TE12L)
NOT MOUNT
R601
R602
R603
R604
R605
R606
RM669
RM670
RM671
52HMX94/62HMX94
DIGITAL (SCALER_INPUT)
SH.NO.
300



52HMX94/62HMX94 SH.NO.
DIGITAL (CAPTURE_INPUT) 301


FPD_DBEP 6/9
[G90A94]
IC301
[SDRAM I/F]
SDDQ31
SDDQ30
SDDQ29
SDDQ28
SDDQ27
SDDQ26
SDDQ25
SDDQ24
SDDQ23
SDDQ22
SDDQ21
SDDQ20
SDDQ19
SDDQ18
SDDQ17
SDDQ16
SDDQ15
SDDQ14
SDDQ13
SDDQ12
SDDQ11
SDDQ10
SDDQ9
SDDQ8
SDDQ7
SDDQ6
SDDQ5
SDDQ4
SDDQ3
SDDQ2
SDDQ1
SDDQ0
SDVREF
SDAD12
SDAD11
SDAD10
SDAD9
SDAD8
SDAD7
SDAD6
SDAD5
SDAD4
SDAD3
SDAD2
SDAD1
SDAD0
SDSCK0
SDSCK1
SDSCK0_N
SDSCK1_N
SDCKE
SDCS_N
SDRAS_N
SDCAS_N
SDWE_N
SDDM3
SDDM2
SDDM1
SDDM0
SDBA1
SDBA0
SDDQS3
SDDQS2
SDDQS1
SDDQS0
RM319
RM320
RM321
RM322
RM323
RM324
RM325
RM326
RM317
RM316
RM318
RM343
RM344
RM345
CK
CK_N
CKE
CS_N
RAS_N
CAS_N
WE_N
DM3
DM2
DM1
DM0
BA1
BA0
DQS
R3016
R3017
R3018
R3027
D_GND
C3018
C3019
C3020
C3021
C3023
C3024
C3022
C3025
0.1u
RM346
RM347
RM348
RM350
RM349
R3019
R3020
R3021
R3022
R3023
R3024
R3025
R3026
R3011
33
DDR SDRAM
128Mbit
[MDSD4M32]
IC302
K4D263238F-UC50
A0
A1
A2
A3
A4
A5
A6
A7
A8/AP
A9
A10
A11
BA0
BA1
CLK
CLKZ
CKE
CSZ
RASZ
CASZ
WEZ
NC/MCL
DM0
DM1
DM2
DM3
DQS
DQ0▽
DQ1▽
DQ2▽
DQ3▽
DQ4▽
DQ5▽
DQ6▽
DQ7▽
DQ8▽
DQ9▽
DQ10▽
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DQ12▽
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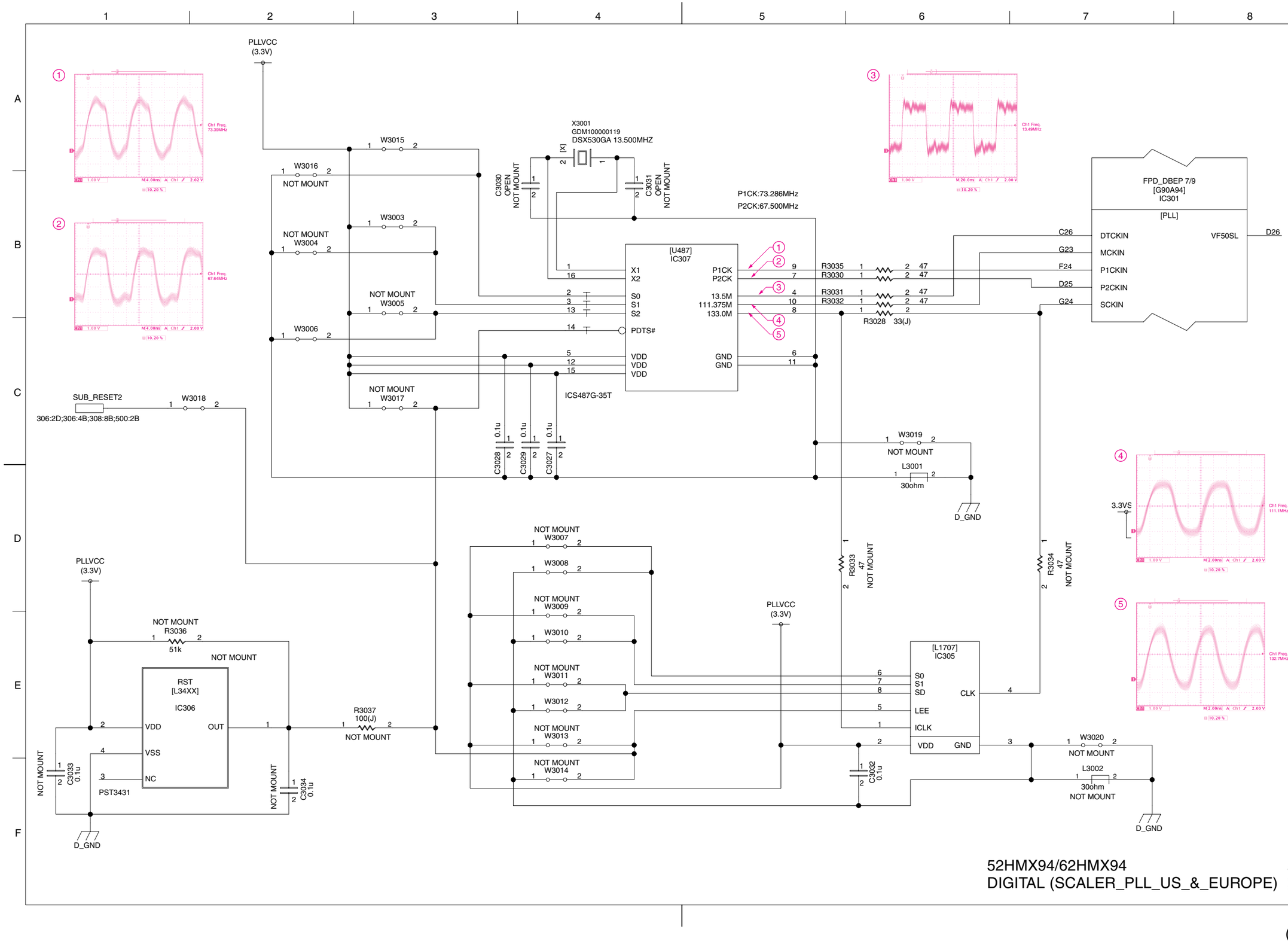
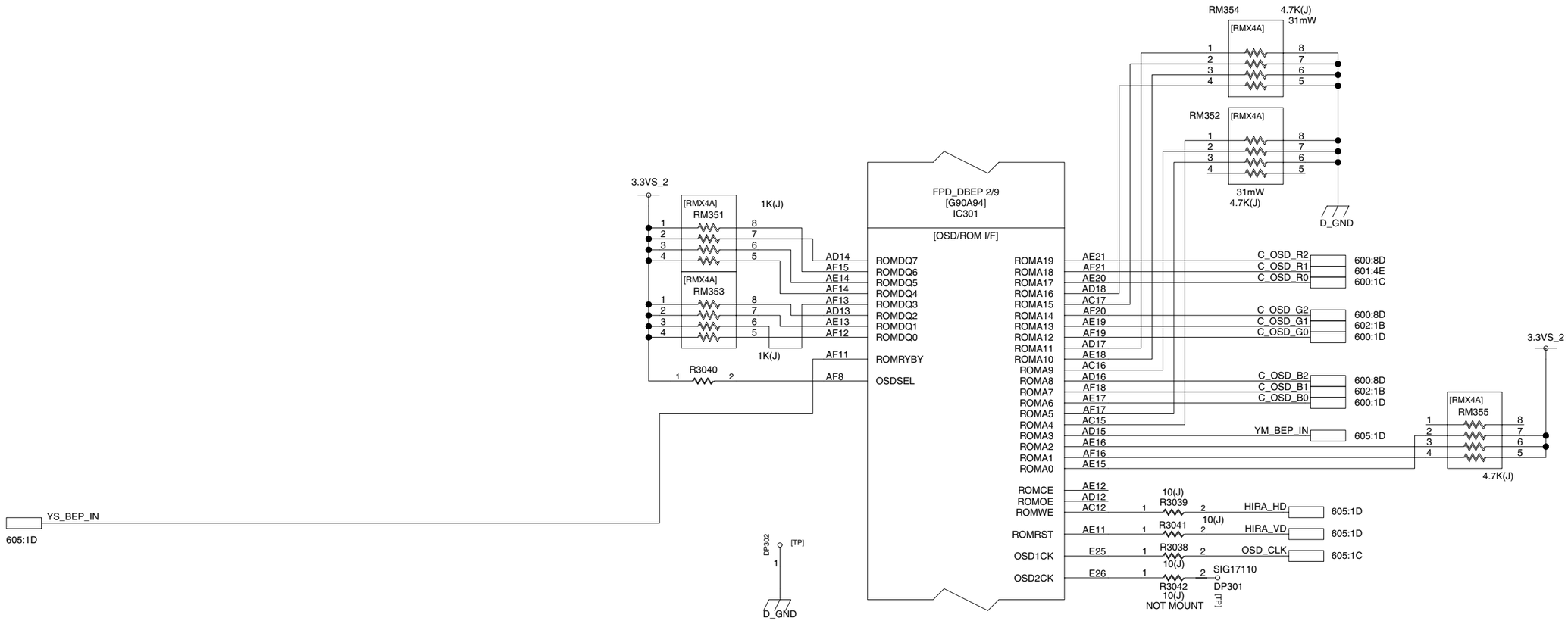
DQ23▽
DQ24▽
DQ25▽
DQ26▽
DQ27▽
DQ28▽
DQ29▽
DQ30▽
DQ31▽
RM335
RM336
RM337
RM338
RM339
RM340
RM341
RM342
VREF
VDDQ
VSSQ
RFU/NC
NC
[VDD]
[VSS]
2.5V_DVCC
REG.
[L2995]
IC303
VDDQ
VREF
VSENSE
NC
VTT
[AVIN]
[PVIN]
[GND]
C3016
C3017
10nF(K)
C3001
220u
[CP]
C3009
C3008
C3007
C3006
C3005
C3004
C3003
C3002
RM334
RM327
RM333
RM328
RM329
RM332
RM330
RM331
C3014
C3013
C3015
C3011
C3012
C3010
W3001
W3002
52HMX94/62HMX94
DIGITAL (DDR_SDRAM)
SH.NO.
302



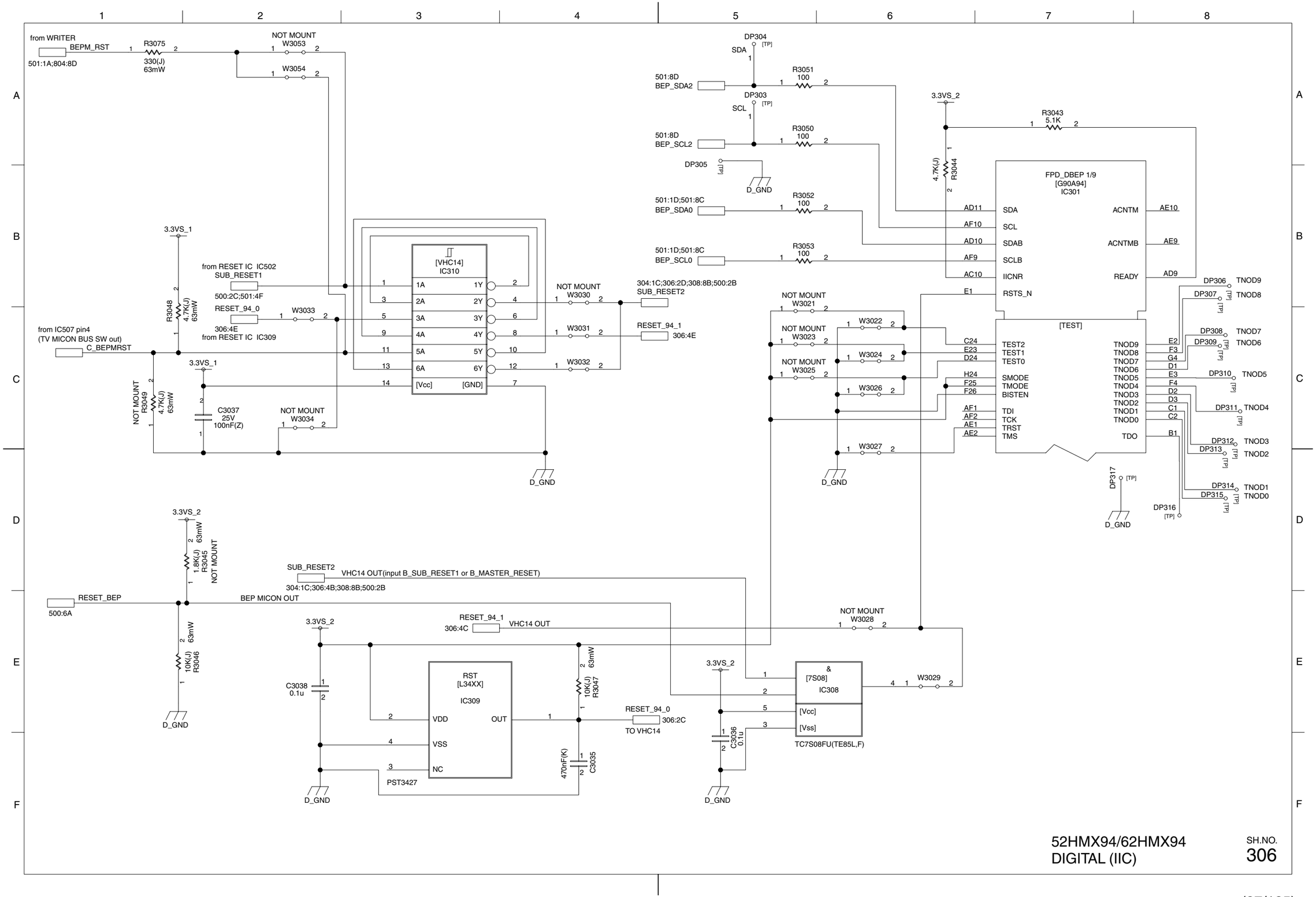
52HMX94/62HMX94
DIGITAL (SCALER_PLL_US_&_EUROPE)

SH.NO.
304



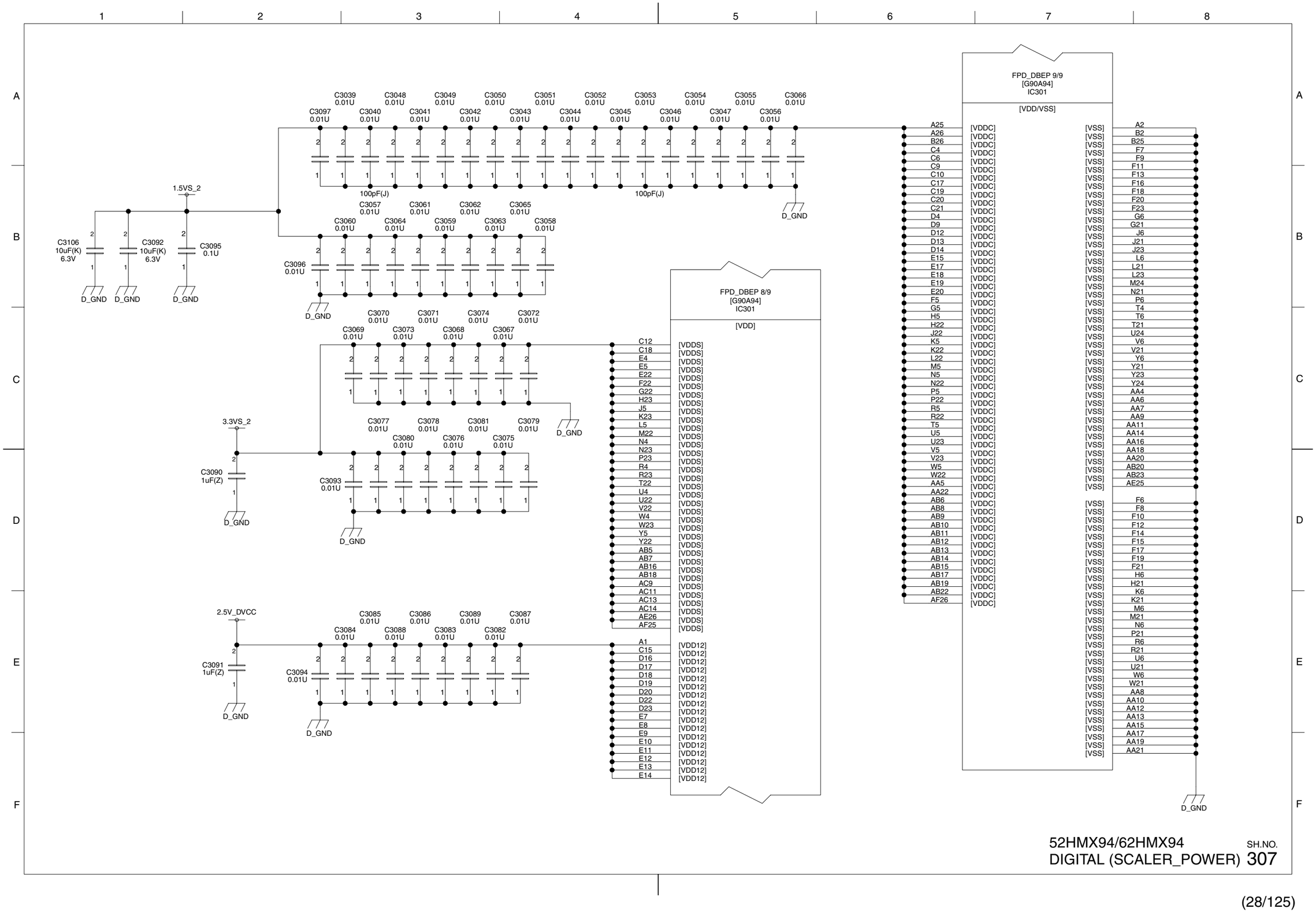
52HMX94/62HMX94
DIGITAL (OSD_FOR_NORTH_AMERICA)

SH.NO.
305



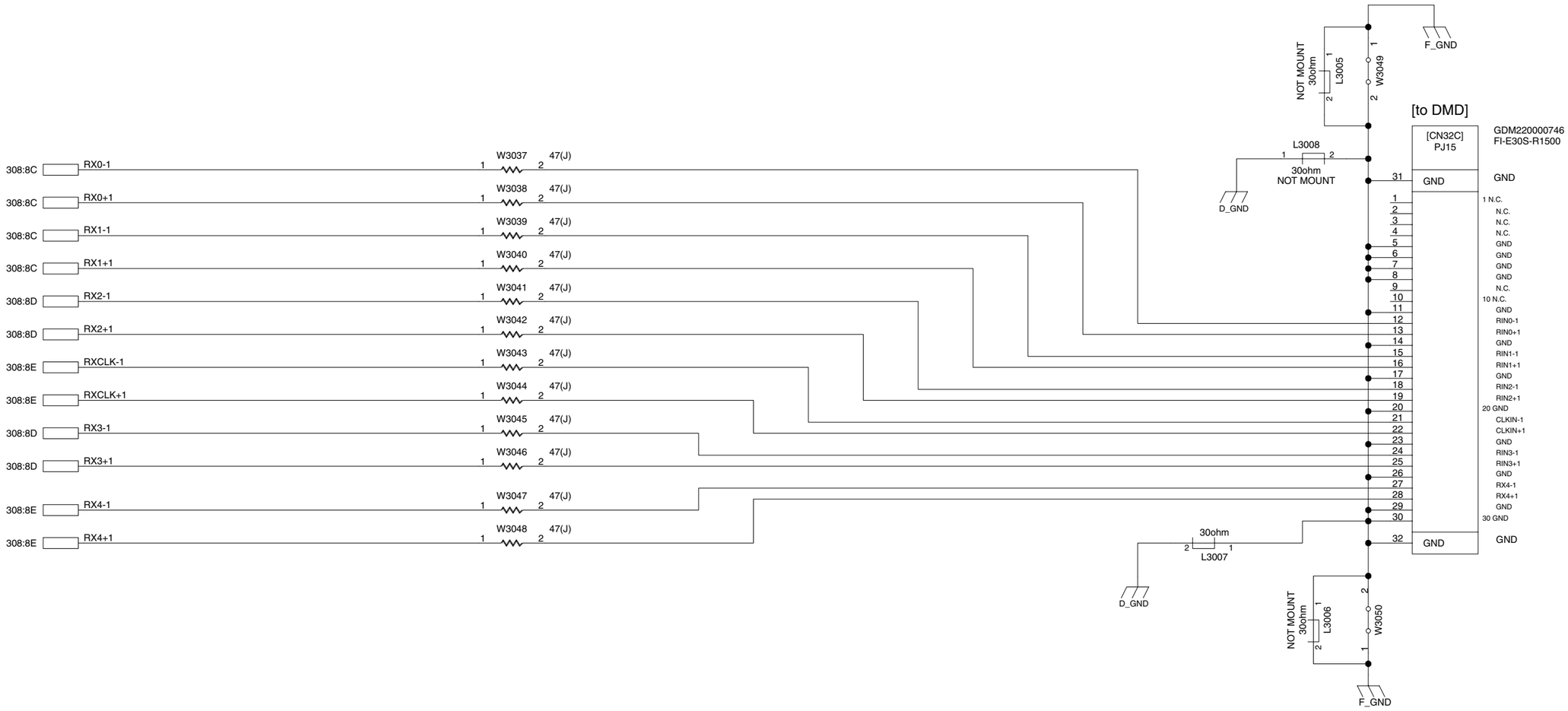
52HMX94/62HMX94
DIGITAL (IIC)

SH.NO.
306


1.5VS_2
C3106 10uF(K) 6.3V
C3092 10uF(K) 6.3V
C3095 0.1U
D_GND
C3039 0.01U
C3048 0.01U
C3049 0.01U
C3050 0.01U
C3051 0.01U
C3052 0.01U
C3053 0.01U
C3054 0.01U
C3055 0.01U
C3066 0.01U
C3097 0.01U
C3040 0.01U
C3041 0.01U
C3042 0.01U
C3043 0.01U
C3044 0.01U
C3045 0.01U
C3046 0.01U
C3047 0.01U
C3056 0.01U
100pF(J)
C3057 0.01U
C3061 0.01U
C3062 0.01U
C3065 0.01U
C3060 0.01U
C3064 0.01U
C3059 0.01U
C3063 0.01U
C3058 0.01U
C3096 0.01U
C3070 0.01U
C3071 0.01U
C3074 0.01U
C3072 0.01U
C3069 0.01U
C3073 0.01U
C3068 0.01U
C3067 0.01U
C3077 0.01U
C3078 0.01U
C3081 0.01U
C3079 0.01U
C3080 0.01U
C3076 0.01U
C3075 0.01U
3.3VS_2
C3090 1uF(Z)
C3093 0.01U
2.5V_DVCC
C3085 0.01U
C3086 0.01U
C3089 0.01U
C3087 0.01U
C3084 0.01U
C3088 0.01U
C3083 0.01U
C3082 0.01U
C3091 1uF(Z)
C3094 0.01U
FPD_DBEP 8/9
[G90A94]
IC301
[VDD]
C12 [VDDS]
C18 [VDDS]
E4 [VDDS]
E5 [VDDS]
E22 [VDDS]
F22 [VDDS]
G22 [VDDS]
H23 [VDDS]
J5 [VDDS]
K23 [VDDS]
L5 [VDDS]
M22 [VDDS]
N4 [VDDS]
N23 [VDDS]
P23 [VDDS]
R4 [VDDS]
R23 [VDDS]
T22 [VDDS]
U4 [VDDS]
U22 [VDDS]
V22 [VDDS]
W4 [VDDS]
W23 [VDDS]
Y5 [VDDS]
Y22 [VDDS]
AB5 [VDDS]
AB7 [VDDS]
AB16 [VDDS]
AB18 [VDDS]
AC9 [VDDS]
AC11 [VDDS]
AC13 [VDDS]
AC14 [VDDS]
AE26 [VDDS]
AF25 [VDDS]
A1 [VDD12]
C15 [VDD12]
D16 [VDD12]
D17 [VDD12]
D18 [VDD12]
D19 [VDD12]
D20 [VDD12]
D22 [VDD12]
D23 [VDD12]
E7 [VDD12]
E8 [VDD12]
E9 [VDD12]
E10 [VDD12]
E11 [VDD12]
E12 [VDD12]
E13 [VDD12]
E14 [VDD12]
FPD_DBEP 9/9
[G90A94]
IC301
[VDD/VSS]
A25 [VDDC]
A26 [VDDC]
B26 [VDDC]
C4 [VDDC]
C6 [VDDC]
C9 [VDDC]
C10 [VDDC]
C17 [VDDC]
C19 [VDDC]
C20 [VDDC]
C21 [VDDC]
D4 [VDDC]
D9 [VDDC]
D12 [VDDC]
D13 [VDDC]
D14 [VDDC]
E15 [VDDC]
E17 [VDDC]
E18 [VDDC]
E19 [VDDC]
E20 [VDDC]
F5 [VDDC]
G5 [VDDC]
H5 [VDDC]
H22 [VDDC]
J22 [VDDC]
K5 [VDDC]
K22 [VDDC]
L22 [VDDC]
M5 [VDDC]
N5 [VDDC]
N22 [VDDC]
P5 [VDDC]
P22 [VDDC]
R5 [VDDC]
R22 [VDDC]
T5 [VDDC]
U5 [VDDC]
U23 [VDDC]
V5 [VDDC]
V23 [VDDC]
W5 [VDDC]
W22 [VDDC]
AA5 [VDDC]
AA22 [VDDC]
AB6 [VDDC]
AB8 [VDDC]
AB9 [VDDC]
AB10 [VDDC]
AB11 [VDDC]
AB12 [VDDC]
AB13 [VDDC]
AB14 [VDDC]
AB15 [VDDC]
AB17 [VDDC]
AB19 [VDDC]
AB22 [VDDC]
AF26 [VDDC]
[VSS] A2
[VSS] B2
[VSS] B25
[VSS] F7
[VSS] F9
[VSS] F11
[VSS] F13
[VSS] F16
[VSS] F18
[VSS] F20
[VSS] F23
[VSS] G6
[VSS] G21
[VSS] J6
[VSS] J21
[VSS] J23
[VSS] L6
[VSS] L21
[VSS] L23
[VSS] M24
[VSS] N21
[VSS] P6
[VSS] T4
[VSS] T6
[VSS] T21
[VSS] U24
[VSS] V6
[VSS] V21
[VSS] Y6
[VSS] Y21
[VSS] Y23
[VSS] Y24
[VSS] AA4
[VSS] AA6
[VSS] AA7
[VSS] AA9
[VSS] AA11
[VSS] AA14
[VSS] AA16
[VSS] AA18
[VSS] AA20
[VSS] AB20
[VSS] AB23
[VSS] AE25
[VSS] F6
[VSS] F8
[VSS] F10
[VSS] F12
[VSS] F14
[VSS] F15
[VSS] F17
[VSS] F19
[VSS] F21
[VSS] H6
[VSS] H21
[VSS] K6
[VSS] K21
[VSS] M6
[VSS] M21
[VSS] N6
[VSS] P21
[VSS] R6
[VSS] R21
[VSS] U6
[VSS] U21
[VSS] W6
[VSS] W21
[VSS] AA8
[VSS] AA10
[VSS] AA12
[VSS] AA13
[VSS] AA15
[VSS] AA17
[VSS] AA19
[VSS] AA21
52HMX94/62HMX94
DIGITAL (SCALER_POWER)
SH.NO.
307

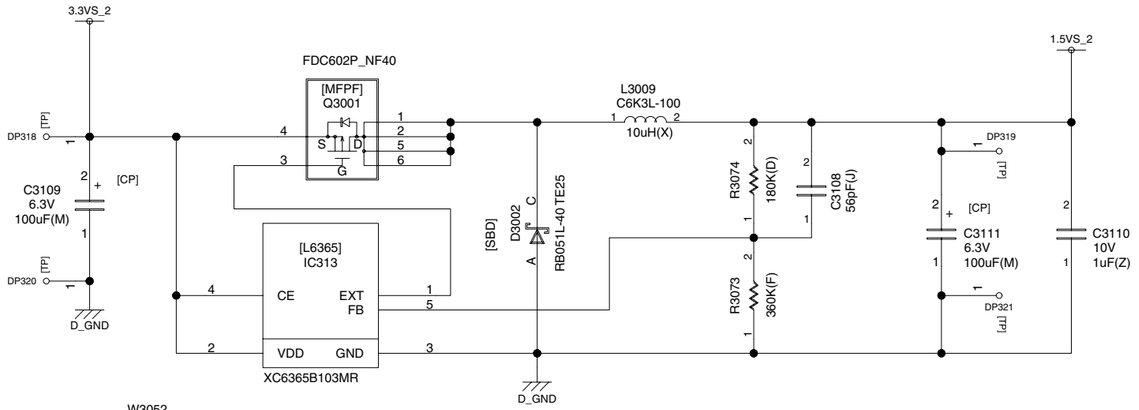
52HMX94/62HMX94
DIGITAL (LVDS_OUTPUT)

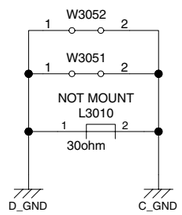
SH.NO. 308

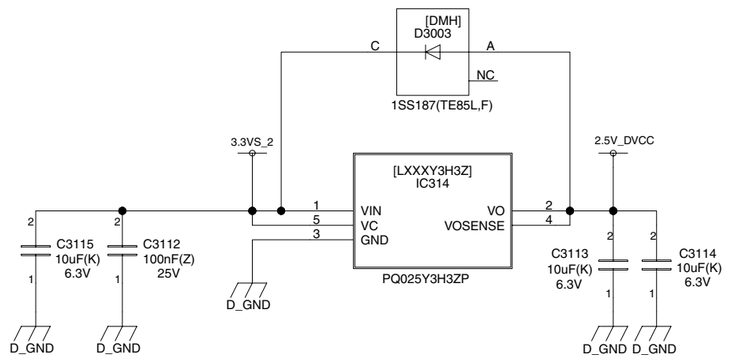


52HMX94/62HMX94
DIGITAL (LVDS_OUT_CONNECTOR)

SH.NO. 309

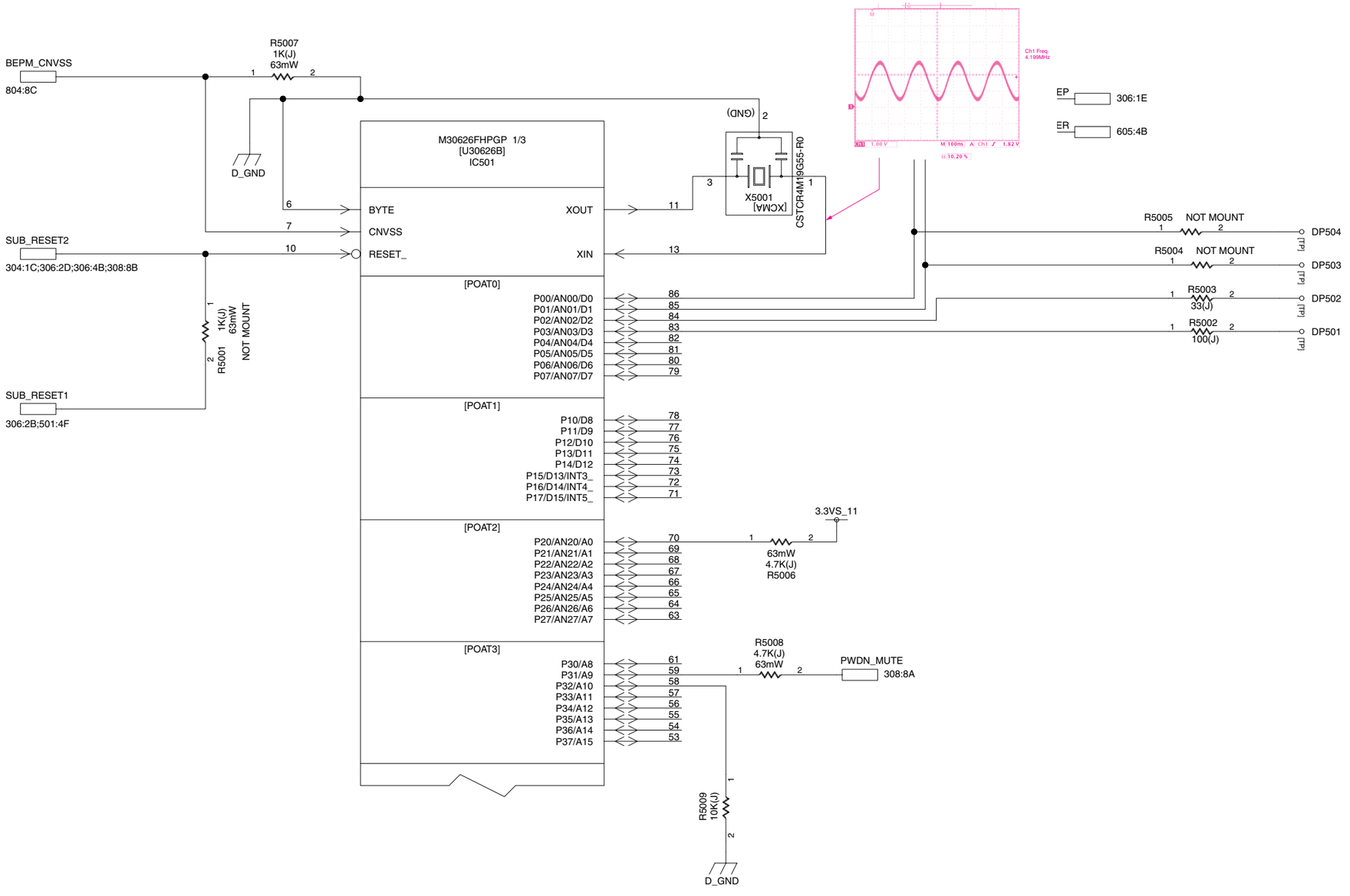






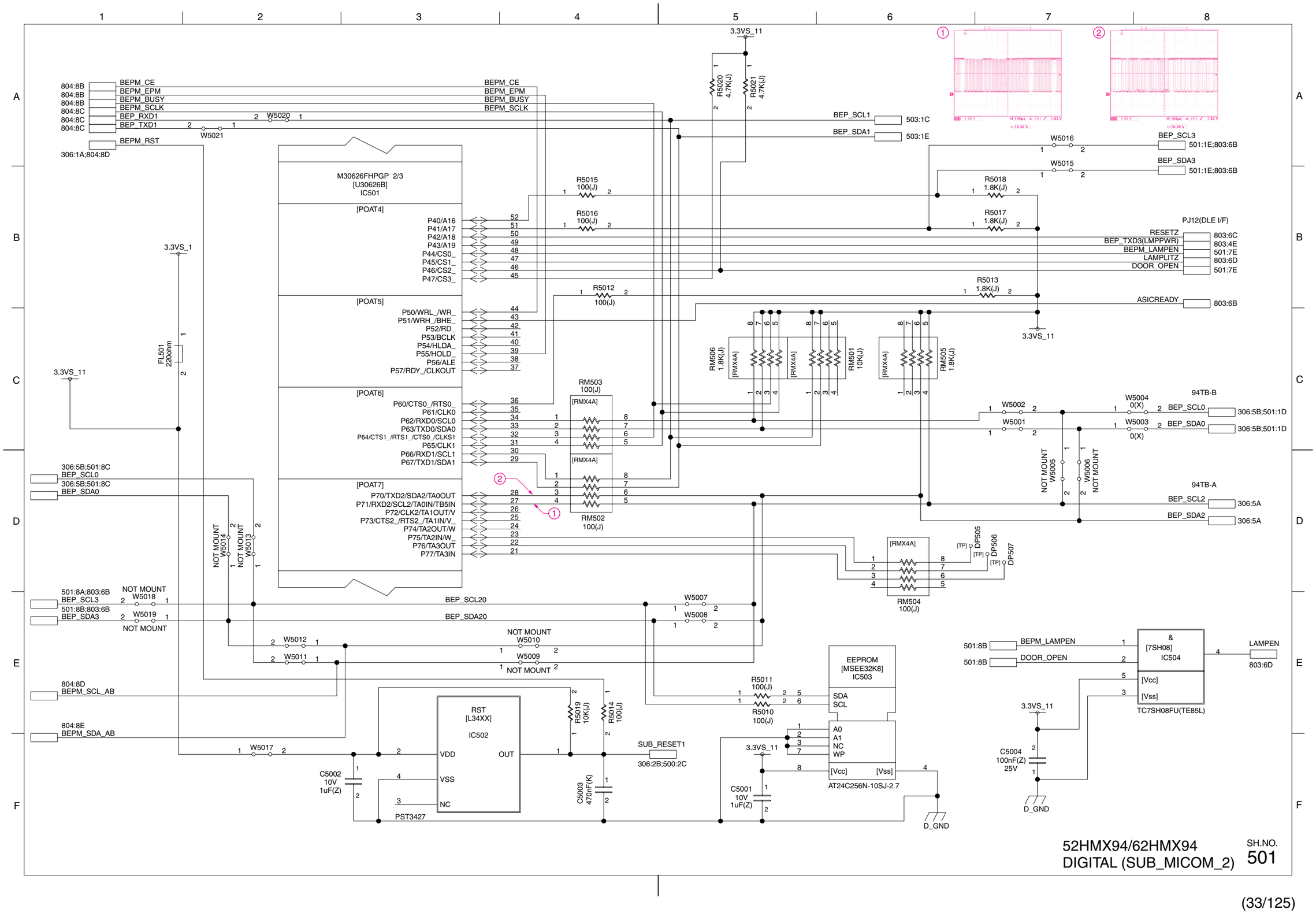
52HMX94/62HMX94
DIGITAL (DC/DCONVERTER)

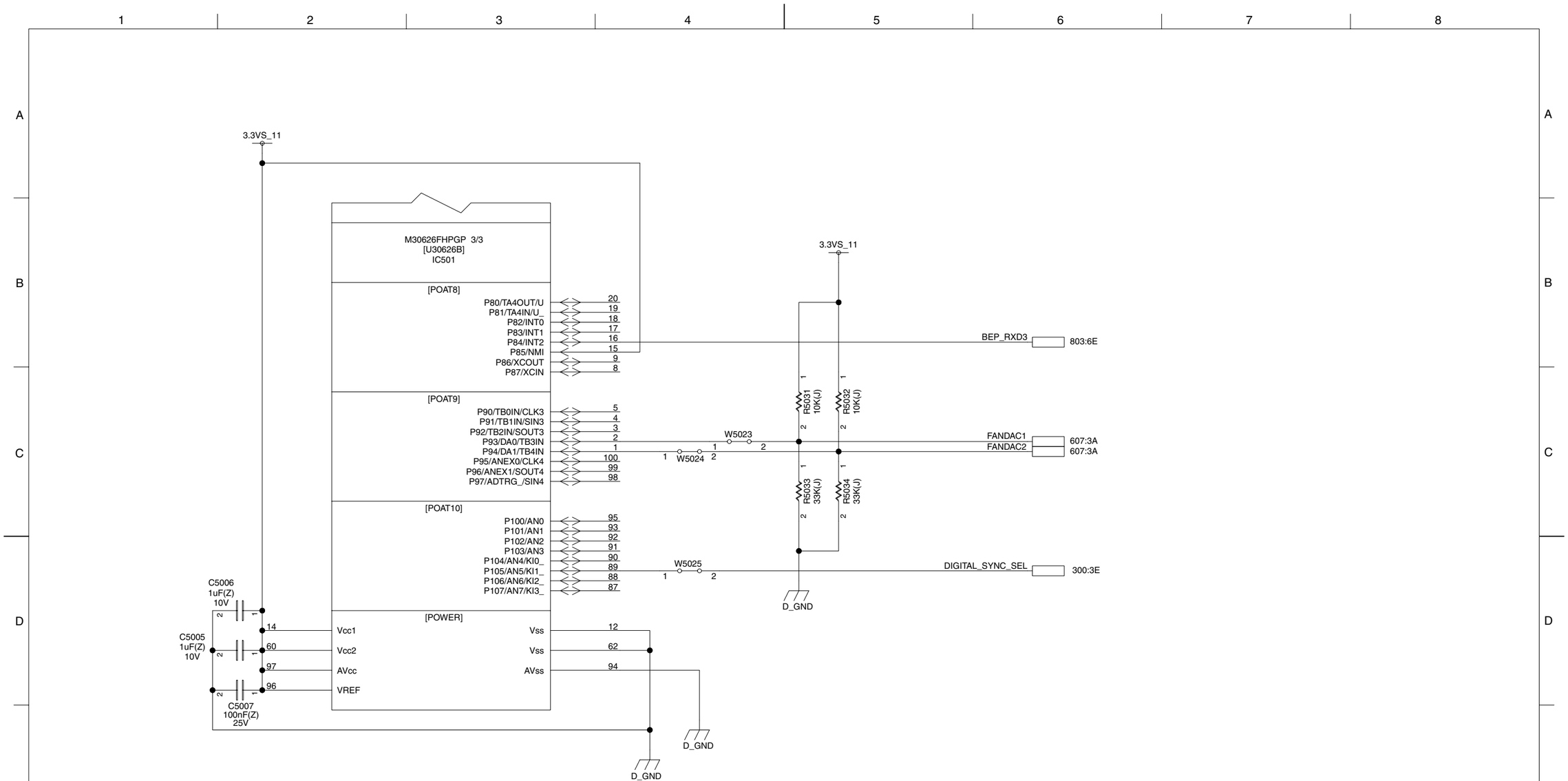
SH.NO.
310



52HMX94/62HMX94
DIGITAL (SUB_MICOM_1)

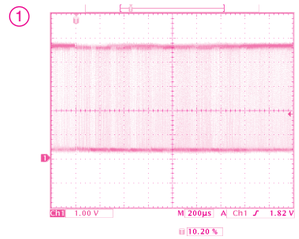
SH.NO.
500

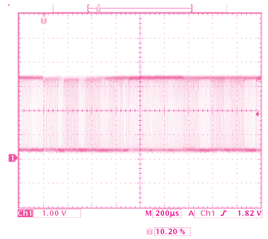

804:8B BEPM_CE
804:8B BEPM_EPM
804:8B BEPM_BUSY
804:8C BEP_SCLK
804:8C BEP_RXD1
804:8C BEP_TXD1
W5020
W5021
BEPM_RST
306:1A;804:8D
M30626FHPGP 2/3
[U30626B]
IC501
[POAT4]
P40/A16
P41/A17
P42/A18
P43/A19
P44/CS0_
P45/CS1_
P46/CS2_
P47/CS3_
[POAT5]
P50/WRL_/WR_
P51/WRH_/BHE_
P52/RD_
P53/BCLK
P54/HLDA_
P55/HOLD_
P56/ALE
P57/RDY_/CLKOUT
[POAT6]
P60/CTS0_/RTS0_
P61/CLK0
P62/RXD0/SCL0
P63/TXD0/SDA0
P64/CTS1_/RTS1_/CTS0_/CLKS1
P65/CLK1
P66/RXD1/SCL1
P67/TXD1/SDA1
[POAT7]
P70/TXD2/SDA2/TA0OUT
P71/RXD2/SCL2/TA0IN/TB5IN
P72/CLK2/TA1OUT/V
P73/CTS2_/RTS2_/TA1IN/V_
P74/TA2OUT/W
P75/TA2IN/W_
P76/TA3OUT
P77/TA3IN
3.3VS_11
R5020 4.7K(J)
R5021 4.7K(J)
BEP_SCL1
BEP_SDA1
503:1C
503:1E
R5015 100(J)
R5016 100(J)
R5012 100(J)
R5018 1.8K(J)
R5017 1.8K(J)
R5013 1.8K(J)
W5016
W5015
BEP_SCL3
BEP_SDA3
501:1E;803:6B
PJ12(DLE I/F)
RESETZ
BEP_TXD3(LMPPWR)
BEPM_LAMPEN
LAMPLITZ
DOOR_OPEN
803:6C
803:4E
501:7E
803:6D
501:7E
ASICREADY
803:6B
RM503 100(J)
RM502 100(J)
RM504 100(J)
RM506 1.8K(J)
RM501 10K(J)
RM505 1.8K(J)
[RMX4A]
[TP] DP505
[TP] DP506
[TP] DP507
94TB-B
W5004 0(X)
W5002
W5001
W5003 0(X)
BEP_SCL0
BEP_SDA0
306:5B;501:1D
94TB-A
BEP_SCL2
BEP_SDA2
306:5A
NOT MOUNT W5005
NOT MOUNT W5006
FL501 220ohm
306:5B;501:8C BEP_SCL0
306:5B;501:8C BEP_SDA0
NOT MOUNT W5014
NOT MOUNT W5013
501:8A;803:6B BEP_SCL3
501:8B;803:6B BEP_SDA3
NOT MOUNT W5018
W5019
NOT MOUNT
BEP_SCL20
BEP_SDA20
W5007
W5008
W5012
W5011
NOT MOUNT W5010
W5009
NOT MOUNT
804:8D BEPM_SCL_AB
804:8E BEPM_SDA_AB
W5017
RST [L34XX] IC502
VDD
VSS
NC
OUT
PST3427
SUB_RESET1
306:2B;500:2C
R5019 10K(J)
R5014 100(J)
C5002 10V 1uF(Z)
C5003 470nF(K)
EEPROM [MSEE32K8] IC503
SDA
SCL
R5011 100(J)
R5010 100(J)
A0
A1
NC
WP
[Vcc]
[Vss]
AT24C256N-10SJ-2.7
C5001 10V 1uF(Z)
D_GND
501:8B BEPM_LAMPEN
501:8B DOOR_OPEN
& [7SH08] IC504
LAMPEN
803:6D
TC7SH08FU(TE85L)
C5004 100nF(Z) 25V
52HMX94/62HMX94
DIGITAL (SUB_MICOM_2)
SH.NO.
501

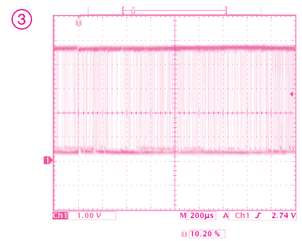


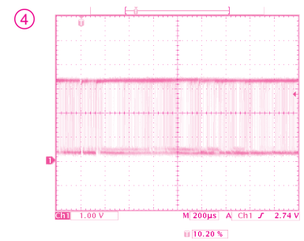
52HMX94/62HMX94
DIGITAL (SUB_MICOM_3)

SH.NO.
502





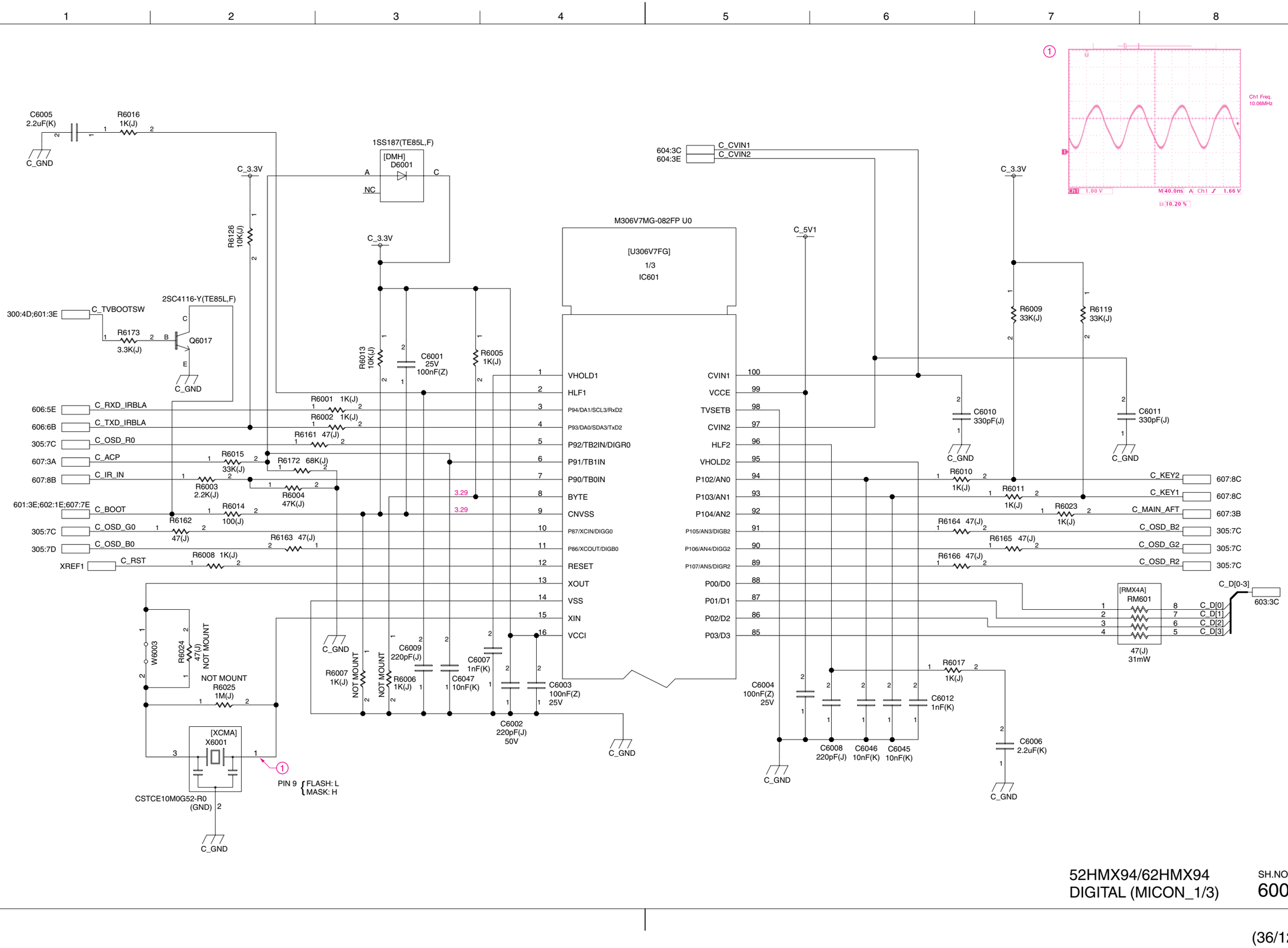




C_5V1
2SC4116-Y(TE85L,F)
R5029 3.9K(J)
4.6V
Q5007 4.0V
R5030 47K(J)
R5022 1K(J)
C5008 0.01U
D_GND
R5028 270(J)
R5027 2.2K(J)
R5025 27K(J)
[TRP]
Q5004
Q5006
2SA1586-Y (TE85L,F)
R5026 27K(J) 63mW
R5023 270(J)
R5024 2.2K(J)
Q5003
Q5005
605:8C I2C1_CNT
3.3VS_11
TV_SCL1
501:6A BEP_SCL1
BUS SWITCH [CL1G125] IC506
OE
A
Y
[VCC]
[GND]
Q5001 2SK2035 (TE85L)
[MFN]
[SBD]
D5001 1SS388(TPH3,F)
10V 1uF(Z) C5009
601:2D;607:3B TV_SDA1
Q5002 2SK2035(TE85L)
BUS SWITCH [CL1G125] IC505
D5002 1SS388(TPH3,F)
10V 1uF(Z) C5010
BUS SWITCH [CL1G125] IC507
C_BEPMRST0
601:8A
C_BEPMRST
306:1C
10V 1uF(Z) C5011

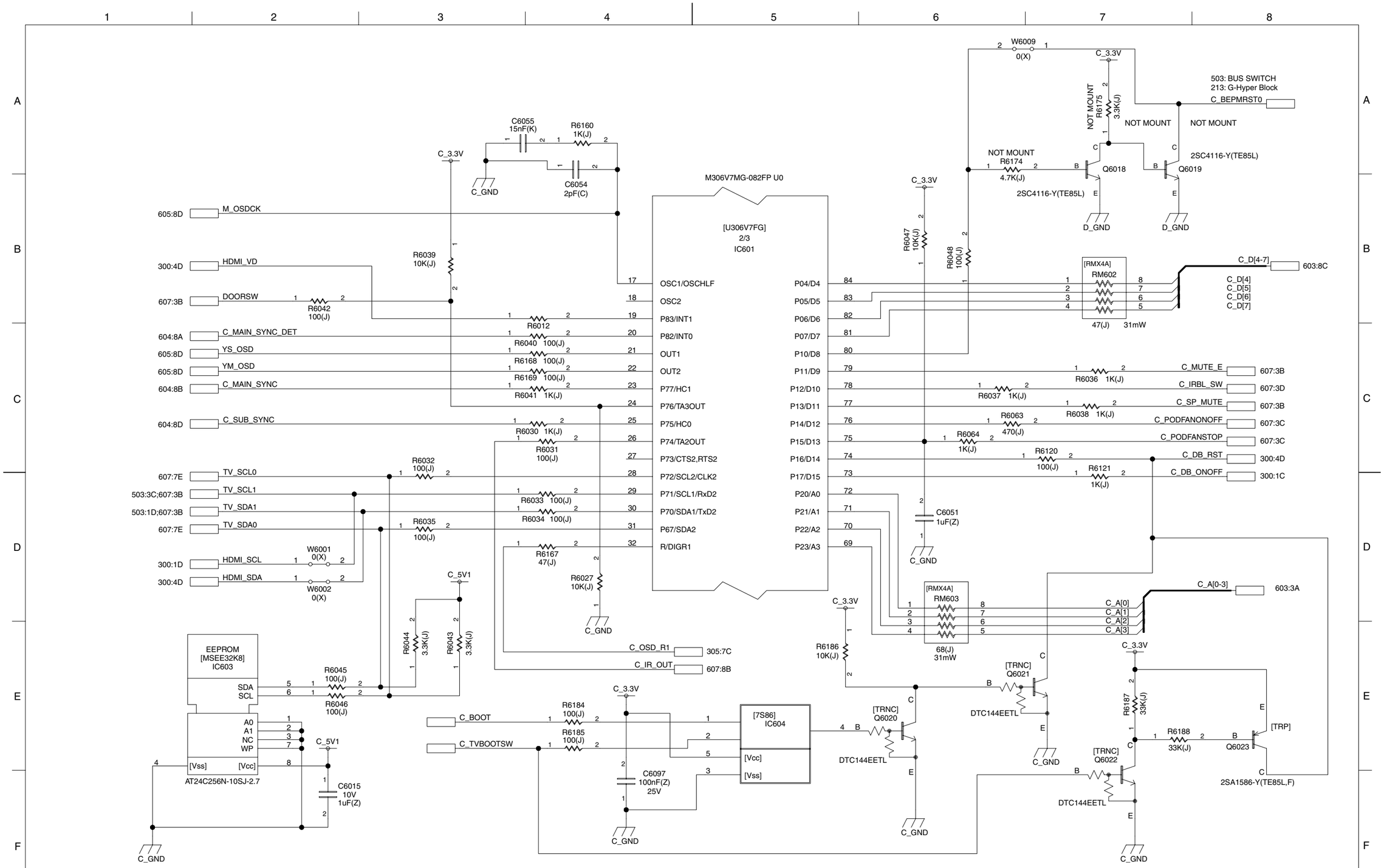
52HMX94/62HMX94
DIGITAL (OSD_MICON_4/4)

SH.NO.
503



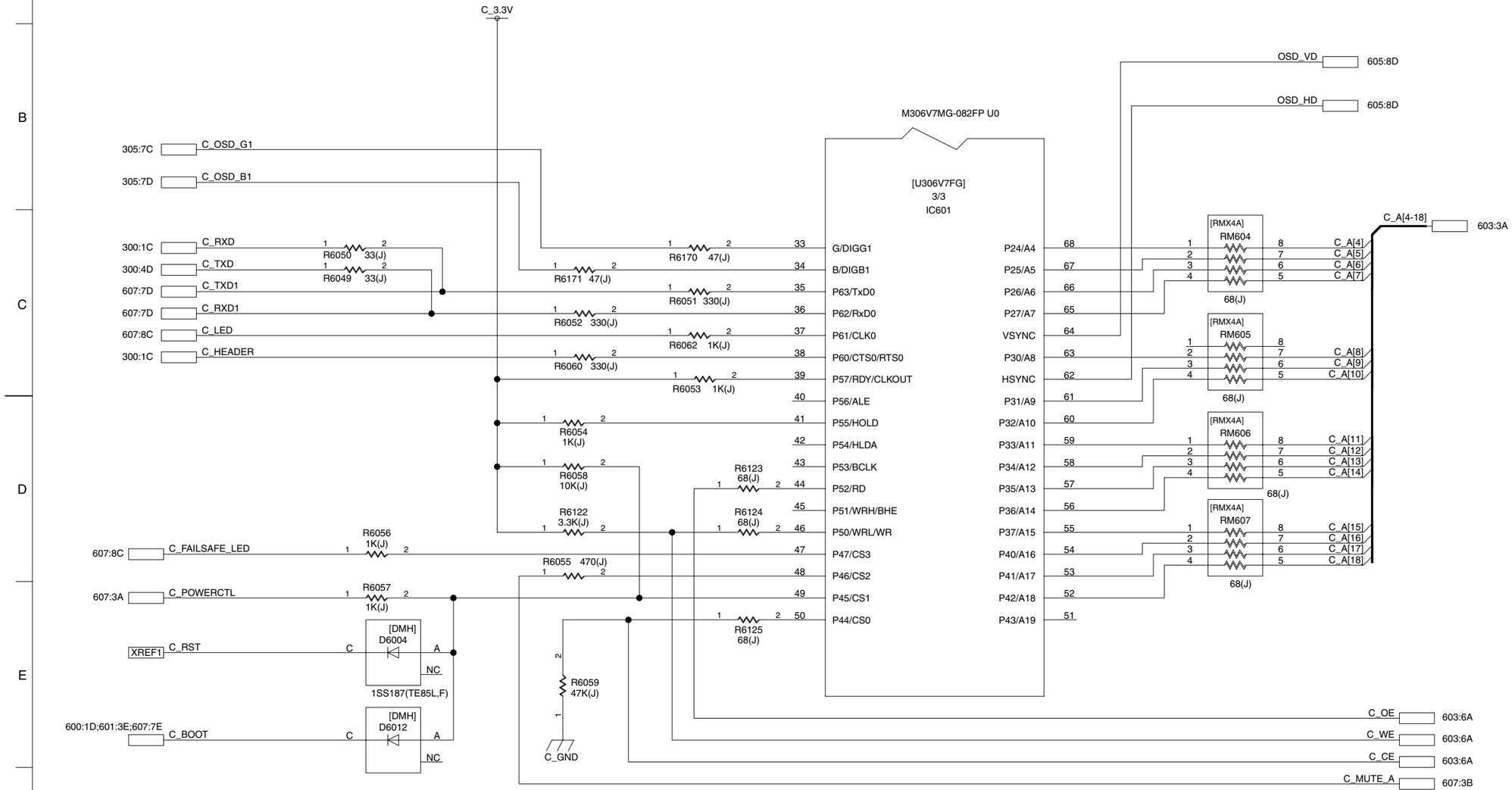
52HMX94/62HMX94
DIGITAL (MICON_1/3)

SH.NO.
600



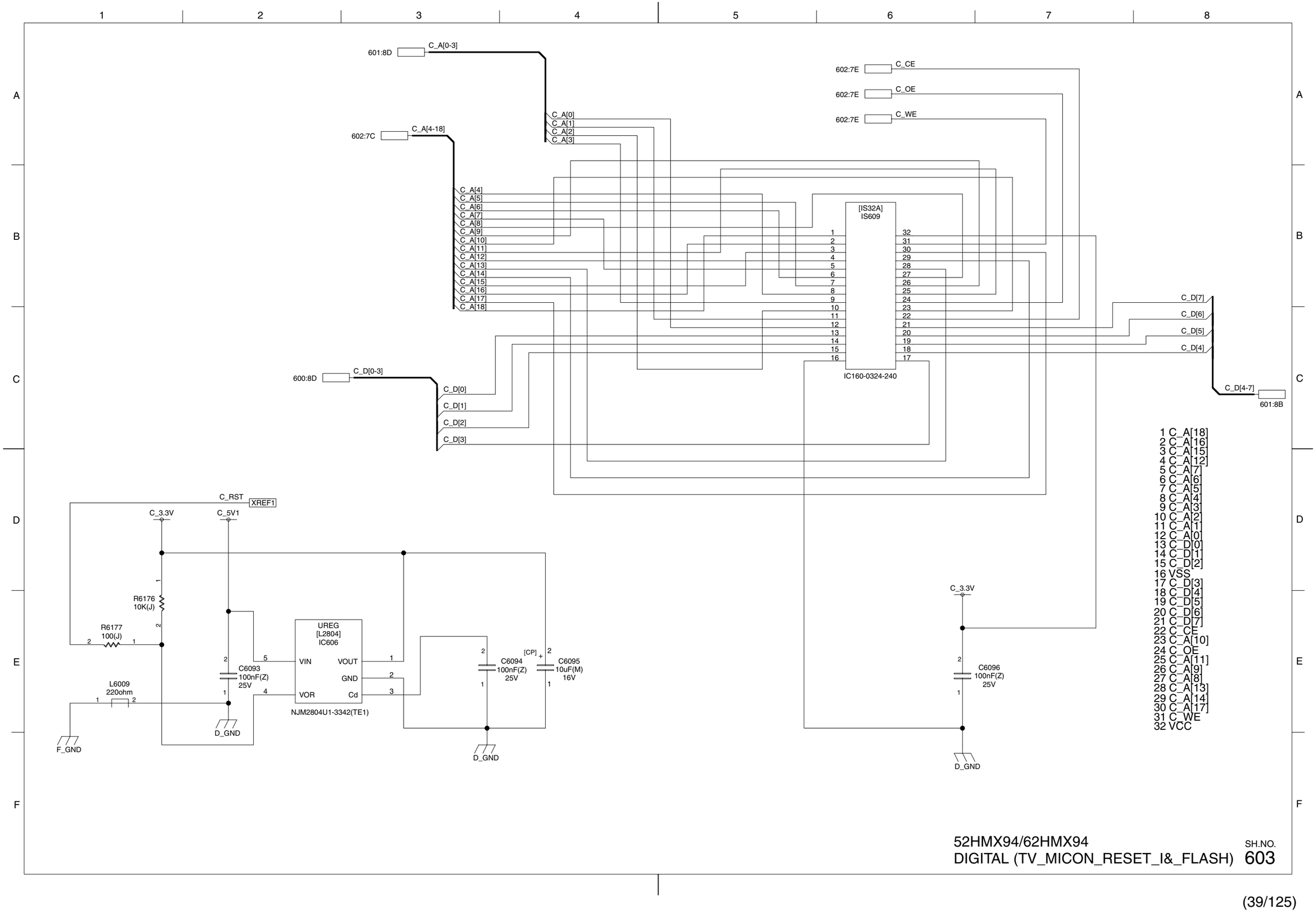
52HMX94/62HMX94
DIGITAL (MICON_2/3)

SH.NO.
601



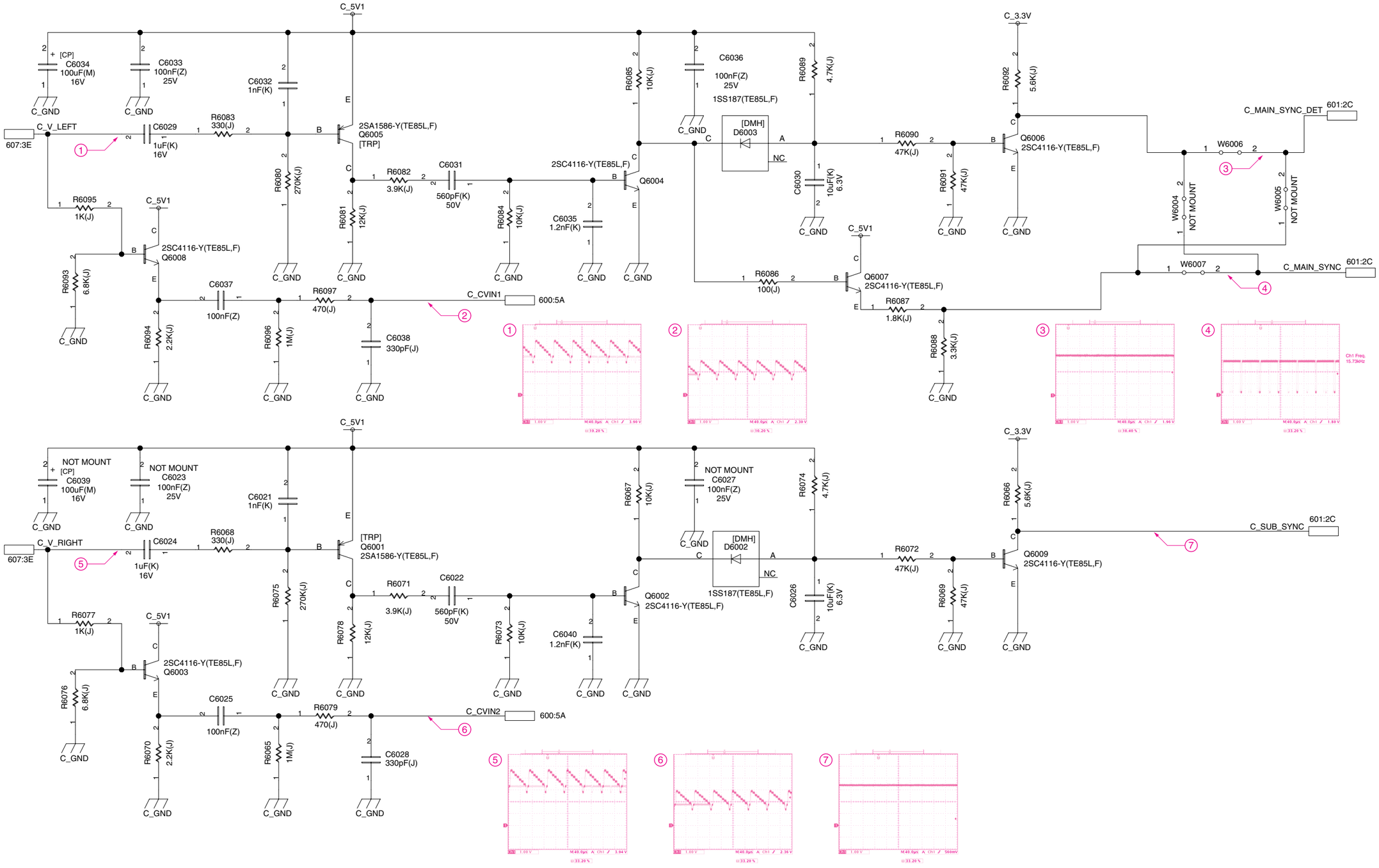
52HMX94/62HMX94
DIGITAL (MICON_3/3)

SH.NO.
602



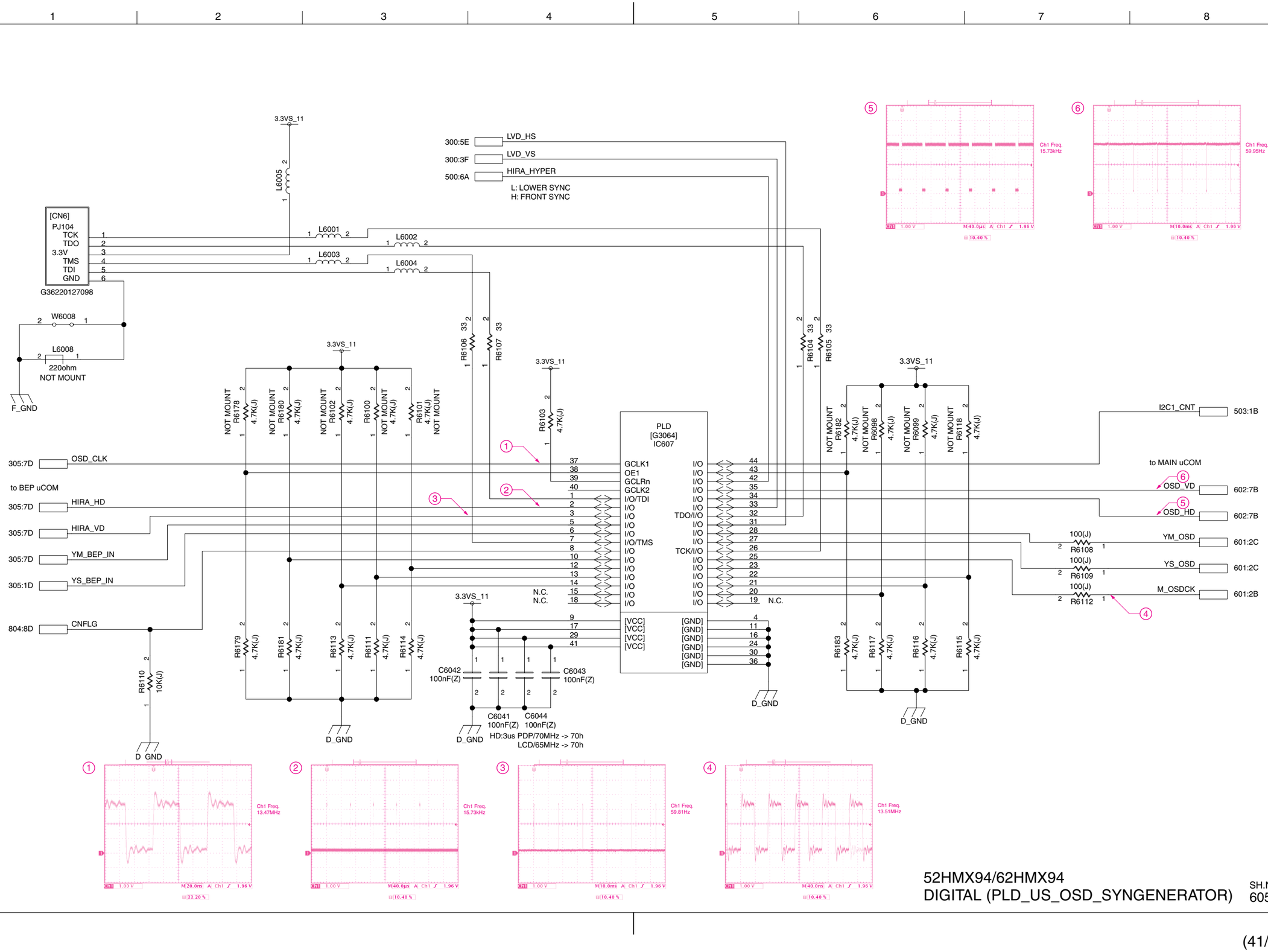
52HMX94/62HMX94
DIGITAL (TV_MICON_RESET_I&_FLASH)

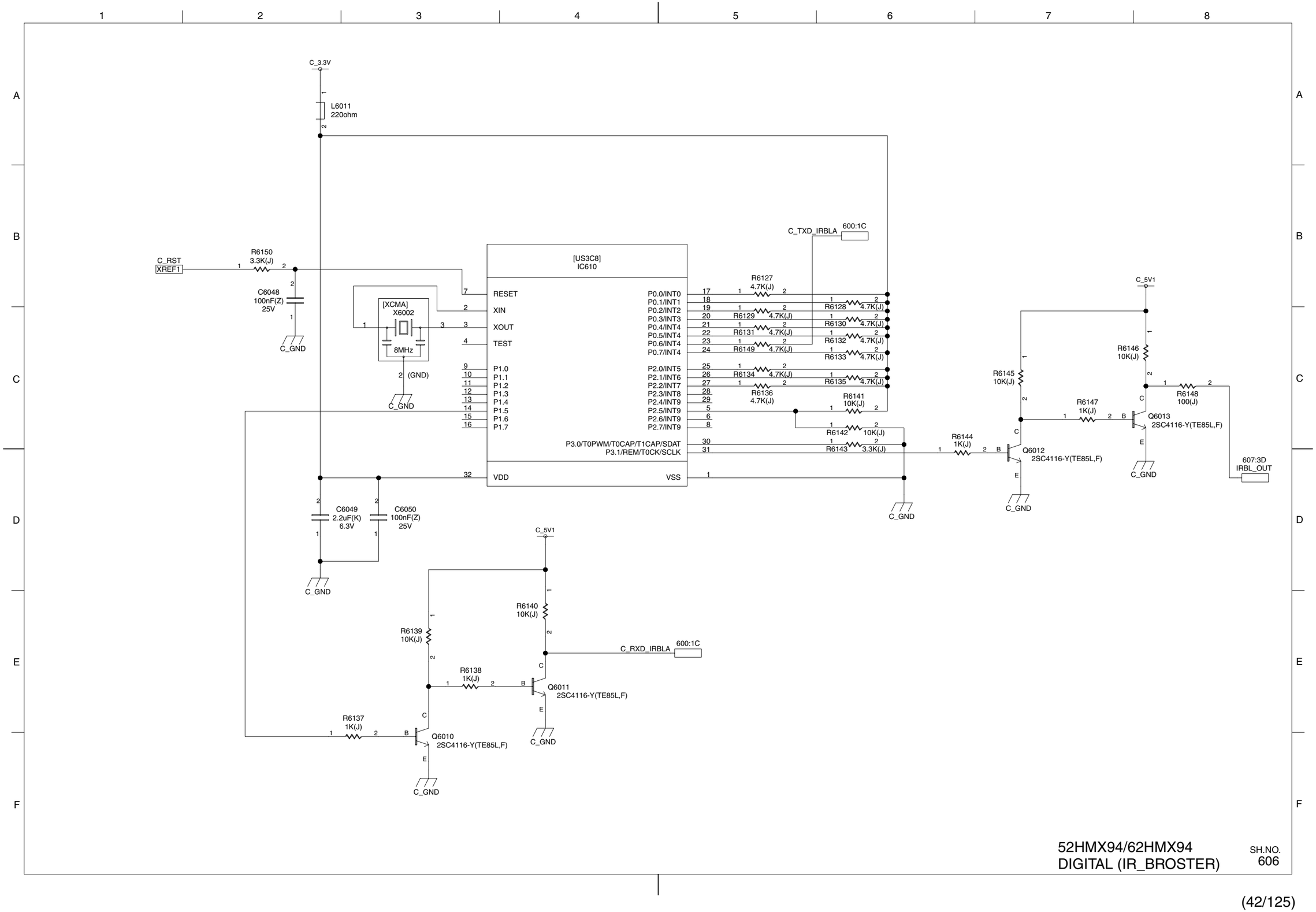
SH.NO. 603



52HMX94/62HMX94
DIGITAL (SYNDETECT)

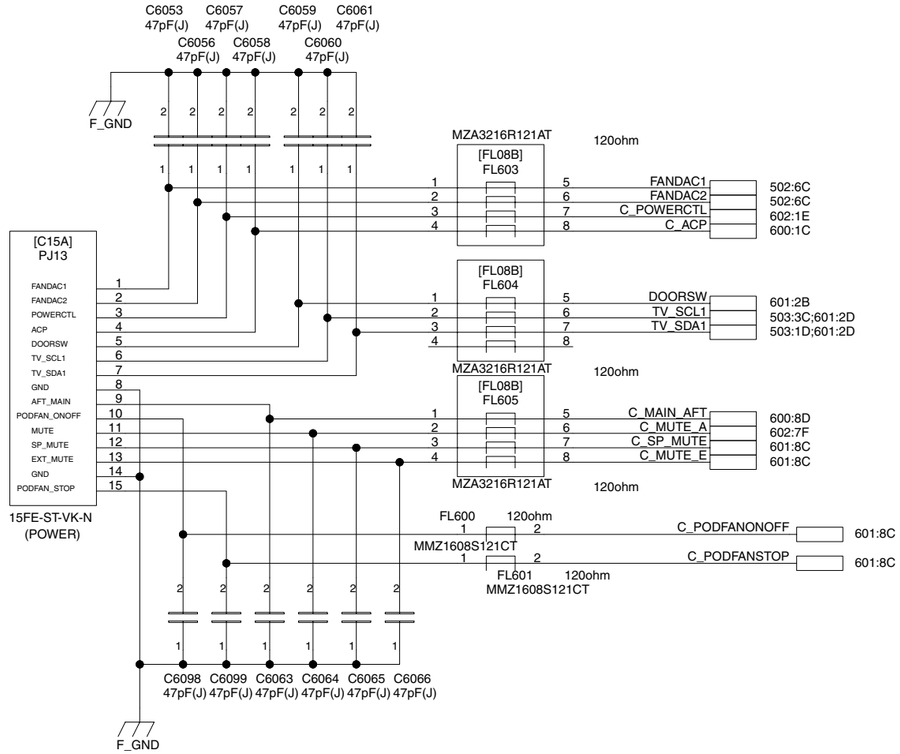
SH.NO.
604

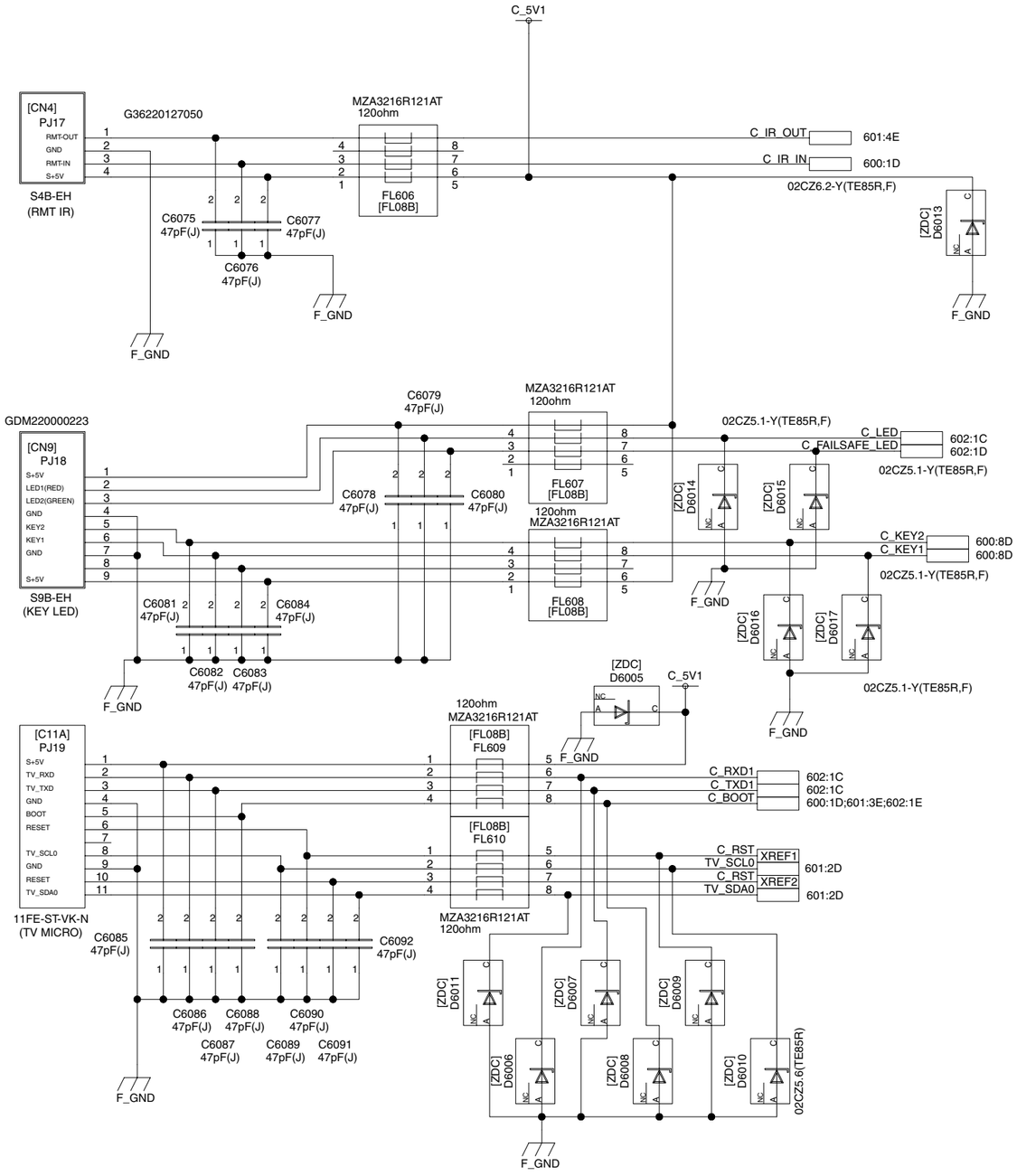

3.3VS_11
L6005
[CN6]
PJ104
TCK
TDO
3.3V
TMS
TDI
GND
G36220127098
L6001
L6002
L6003
L6004
300:5E
LVD_HS
300:3F
LVD_VS
500:6A
HIRA_HYPER
L: LOWER SYNC
H: FRONT SYNC
W6008
L6008
220ohm
NOT MOUNT
F_GND
R6106 33
R6107 33
R6104 33
R6105 33
NOT MOUNT R6178 4.7K(J)
NOT MOUNT R6180 4.7K(J)
NOT MOUNT R6102 4.7K(J)
R6100 4.7K(J)
NOT MOUNT R6101 4.7K(J)
R6103 4.7K(J)
PLD
[G3064]
IC607
305:7D
OSD_CLK
to BEP uCOM
HIRA_HD
HIRA_VD
YM_BEP_IN
YS_BEP_IN
804:8D
CNFLG
GCLK1
OE1
GCLRn
GCLK2
I/O/TDI
I/O
I/O/TMS
TDO/I/O
TCK/I/O
N.C.
[VCC]
[GND]
R6110 10K(J)
R6179 4.7K(J)
R6181 4.7K(J)
R6113 4.7K(J)
R6111 4.7K(J)
R6114 4.7K(J)
C6042 100nF(Z)
C6043 100nF(Z)
C6041 100nF(Z)
C6044 100nF(Z)
HD:3us PDP/70MHz -> 70h
LCD/65MHz -> 70h
D_GND
NOT MOUNT R6182 4.7K(J)
NOT MOUNT R6098 4.7K(J)
NOT MOUNT R6099 4.7K(J)
NOT MOUNT R6118 4.7K(J)
R6183 4.7K(J)
R6117 4.7K(J)
R6116 4.7K(J)
R6115 4.7K(J)
I2C1_CNT
503:1B
to MAIN uCOM
OSD_VD
602:7B
OSD_HD
602:7B
100(J) R6108
YM_OSD
601:2C
100(J) R6109
YS_OSD
601:2C
100(J) R6112
M_OSDCK
601:2B
Ch1 Freq. 15.73kHz
Ch1 Freq. 59.95Hz
Ch1 Freq. 13.47MHz
Ch1 Freq. 15.73kHz
Ch1 Freq. 59.81Hz
Ch1 Freq. 13.51MHz
52HMX94/62HMX94
DIGITAL (PLD_US_OSD_SYNGENERATOR)
SH.NO.
605



52HMX94/62HMX94
DIGITAL (IR_BROSTER)

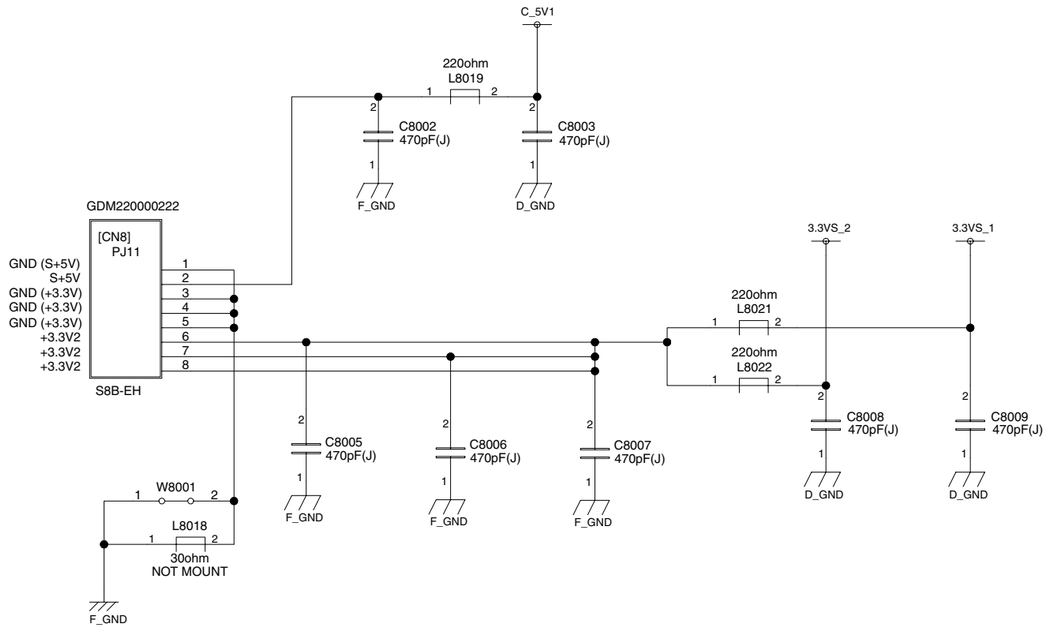
SH.NO.
606





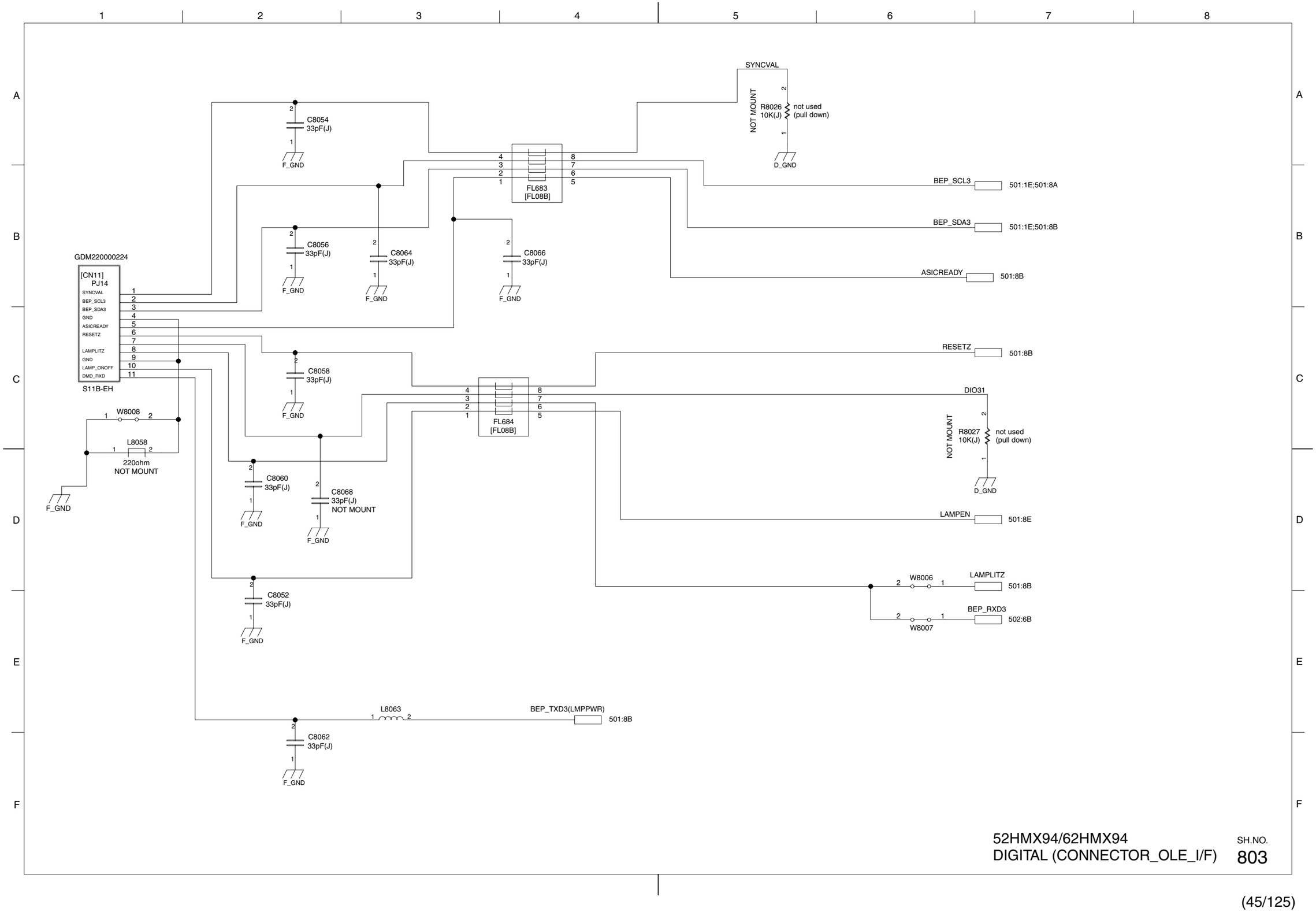
52HMX94/62HMX94
DIGITAL (CONNECTOR)

SH.NO.
607



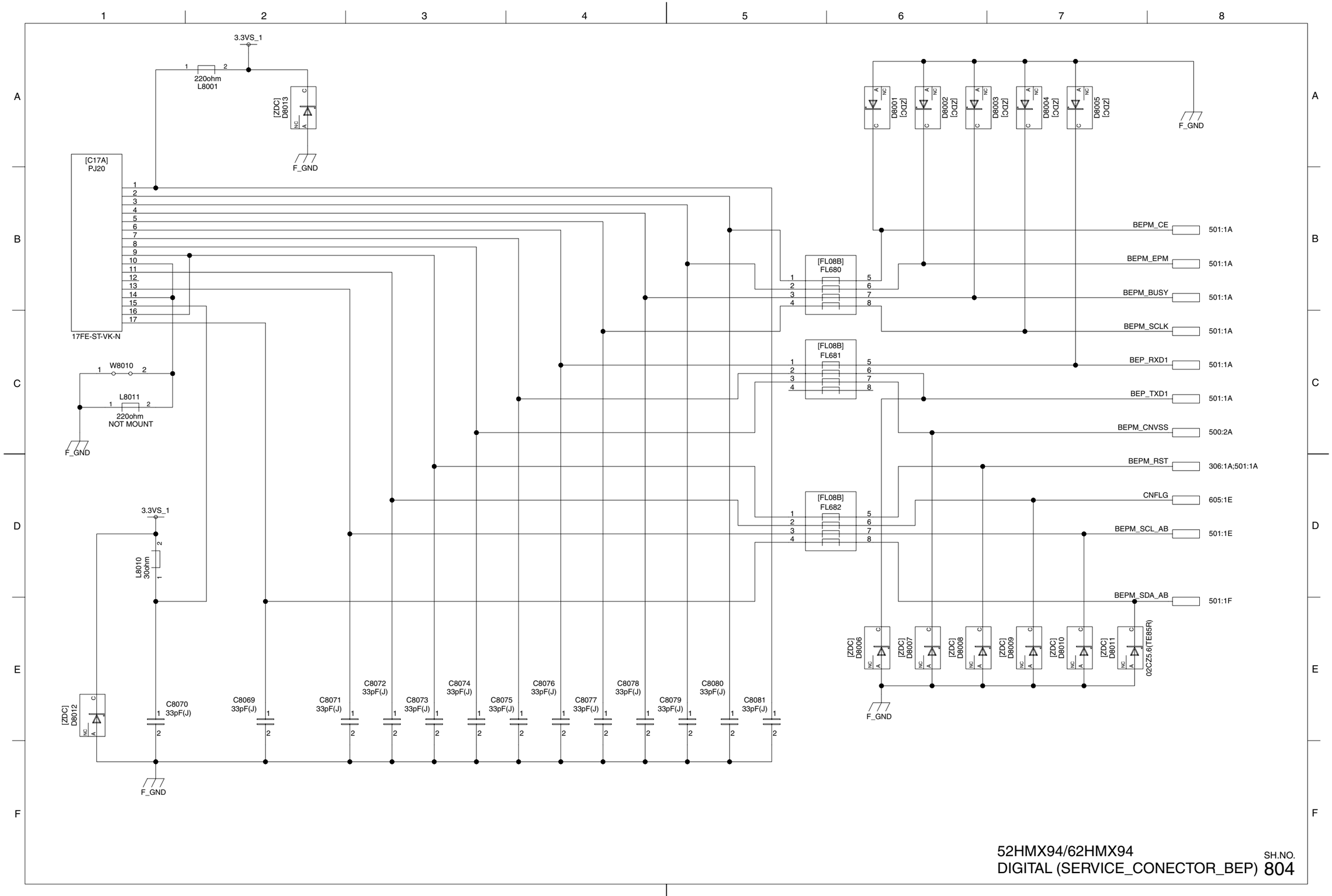
52HMX94/62HMX94
DIGITAL (POWER_CONNECTOR)

SH.NO.
800



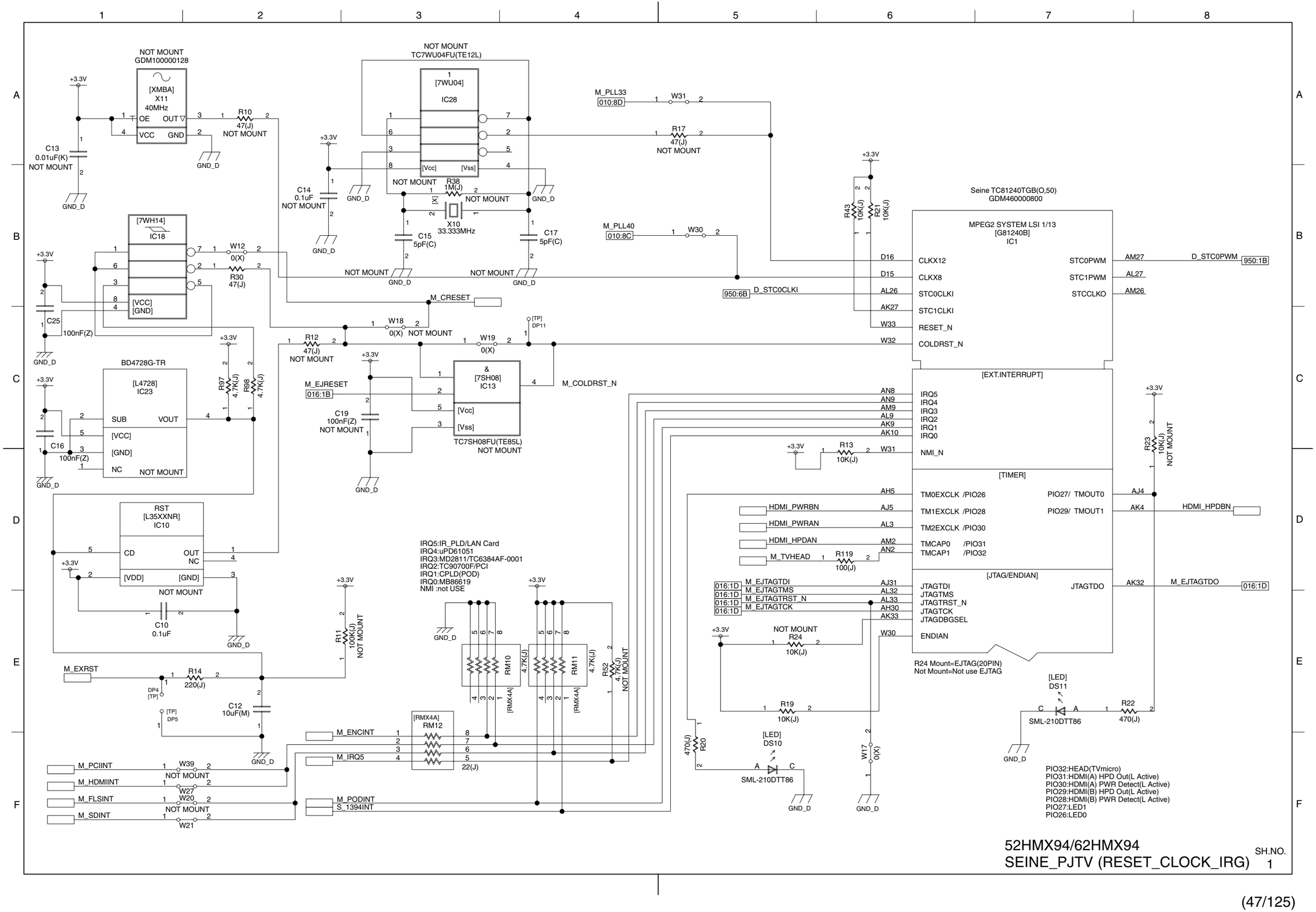
52HMX94/62HMX94
DIGITAL (CONNECTOR_OLE_I/F)

SH.NO.
803



52HMX94/62HMX94
DIGITAL (SERVICE_CONECTOR_BEP)

SH.NO. 804


NOT MOUNT
GDM100000128
[XMBA]
X11
40MHz
OE
OUT
VCC
GND
R10
47(J)
NOT MOUNT
C13
0.01uF(K)
NOT MOUNT
GND_D
+3.3V
NOT MOUNT
TC7WU04FU(TE12L)
[7WU04]
IC28
[Vcc]
[Vss]
C14
0.1uF
NOT MOUNT
R38
1M(J)
NOT MOUNT
X10
33.333MHz
C15
5pF(C)
C17
5pF(C)
M_PLL33
010:8D
W31
R17
47(J)
NOT MOUNT
M_PLL40
010:8C
W30
[7WH14]
IC18
W12
0(X)
R30
47(J)
C25
100nF(Z)
M_CRESET
W18
0(X)
NOT MOUNT
W19
0(X)
[TP]
DP11
R12
47(J)
NOT MOUNT
BD4728G-TR
[L4728]
IC23
SUB
VOUT
[VCC]
[GND]
NC
C16
100nF(Z)
R97
4.7K(J)
R98
4.7K(J)
M_EJRESET
016:1B
C19
100nF(Z)
NOT MOUNT
&
[7SH08]
IC13
TC7SH08FU(TE85L)
NOT MOUNT
M_COLDRST_N
RST
[L35XXNR]
IC10
CD
OUT
NC
[VDD]
[GND]
C10
0.1uF
R11
100K(J)
NOT MOUNT
M_EXRST
R14
220(J)
DP4
[TP]
[TP]
DP5
C12
10uF(M)
IRQ5:IR_PLD/LAN Card
IRQ4:uPD61051
IRQ3:MD2811/TC6384AF-0001
IRQ2:TC90700F/PCI
IRQ1:CPLD(POD)
IRQ0:MB86619
NMI :not USE
RM10
RM11
4.7K(J)
[RMX4A]
R52
4.7K(J)
NOT MOUNT
[RMX4A]
RM12
22(J)
M_ENCINT
M_IRQ5
M_PCIINT
M_HDMIINT
M_FLSINT
M_SDINT
W39
NOT MOUNT
W27
W20
NOT MOUNT
W21
M_PODINT
S_1394INT
Seine TC81240TGB(O,50)
GDM460000800
MPEG2 SYSTEM LSI 1/13
[G81240B]
IC1
R43
10K(J)
R21
10K(J)
D16
D15
AL26
AK27
W33
W32
CLKX12
CLKX8
STC0CLKI
STC1CLKI
RESET_N
COLDRST_N
950:6B
D_STC0CLKI
STC0PWM
STC1PWM
STCCLKO
AM27
AL27
AM26
D_STC0PWM
950:1B
[EXT.INTERRUPT]
AN8
AN9
AM9
AL9
AK9
AK10
IRQ5
IRQ4
IRQ3
IRQ2
IRQ1
IRQ0
NMI_N
R13
10K(J)
W31
[TIMER]
AH5
AJ5
AL3
AM2
AN2
TM0EXCLK /PIO26
TM1EXCLK /PIO28
TM2EXCLK /PIO30
TMCAP0 /PIO31
TMCAP1 /PIO32
PIO27/ TMOUT0
PIO29/ TMOUT1
AJ4
AK4
HDMI_PWRBN
HDMI_PWRAN
HDMI_HPDAN
M_TVHEAD
R119
100(J)
HDMI_HPDBN
R23
10K(J)
NOT MOUNT
[JTAG/ENDIAN]
M_EJTAGTDI
M_EJTAGTMS
M_EJTAGTRST_N
M_EJTAGTCK
016:1D
AJ31
AL32
AL33
AH30
AK33
JTAGTDI
JTAGTMS
JTAGTRST_N
JTAGTCK
JTAGDBGSEL
JTAGTDO
AK32
M_EJTAGTDO
016:1D
ENDIAN
W30
NOT MOUNT
R24
10K(J)
R24 Mount=EJTAG(20PIN)
Not Mount=Not use EJTAG
R19
10K(J)
[LED]
DS11
SML-210DTT86
R22
470(J)
470(J)
R20
[LED]
DS10
SML-210DTT86
W17
0(X)
PIO32:HEAD(TVmicro)
PIO31:HDMI(A) HPD Out(L Active)
PIO30:HDMI(A) PWR Detect(L Active)
PIO29:HDMI(B) HPD Out(L Active)
PIO28:HDMI(B) PWR Detect(L Active)
PIO27:LED1
PIO26:LED0
52HMX94/62HMX94
SEINE_PJTV (RESET_CLOCK_IRG)
SH.NO.
1

Seine TC81240TGB(O,50)
GDM460000800

MPEG2 SYSTEM LSI 4/13
[G81240B]
IC1

[SLOW-BUS]

33(J)
RM17 [RMX4A]
RM18 [RMX4A]
RM19 [RMX4A]
RM20 [RMX4A]
4.7K(J)
RM13 [RMX4A]
RM14 [RMX4A]
RM15 [RMX4A]
RM16 [RMX4A]

M_SBD12 M_SBD13 M_SBD14 M_SBD15 M_SBD8 M_SBD9 M_SBD10 M_SBD11 M_SBD4 M_SBD5 M_SBD6 M_SBD7 M_SBD0 M_SBD1 M_SBD2 M_SBD3

M_SBDI12 M_SBDI13 M_SBDI14 M_SBDI15 M_SBDI8 M_SBDI9 M_SBDI10 M_SBDI11 M_SBDI4 M_SBDI5 M_SBDI6 M_SBDI7 M_SBDI0 M_SBDI1 M_SBDI2 M_SBDI3

M_SBDI15 G33 M_SBDI14 H33 M_SBDI13 H32 M_SBDI12 H31 M_SBDI11 H30 M_SBDI10 J30 M_SBDI9 J31 M_SBDI8 J32 M_SBDI7 J33 M_SBDI6 K33 M_SBDI5 K32 M_SBDI4 K31 M_SBDI3 K30 M_SBDI2 L30 M_SBDI1 L31 M_SBDI0 L32

SBDAT15 SBDAT14 SBDAT13 SBDAT12 SBDAT11 SBDAT10 SBDAT9 SBDAT8 SBDAT7 SBDAT6 SBDAT5 SBDAT4 SBDAT3 SBDAT2 SBDAT1 SBDAT0

R30
SBACK_N

SBADD25 B33 SBADD24 B32 SBADD23 B31 SBADD22 C30 SBADD21 C31 SBADD20 C32 SBADD19 C33 SBADD18 D33 SBADD17 D32 SBADD16 D31 SBADD15 D30 SBADD14 E29 SBADD13 E30 SBADD12 E31 SBADD11 E32 SBADD10 E33 SBADD9 F33 SBADD8 F32 SBADD7 F31 SBADD6 F30 SBADD5 F29 SBADD4 G30 SBADD3 G31 SBADD2 G32 SBADD1

M_SBAI25 M_SBAI24 M_SBAI23 M_SBAI22 M_SBAI21 M_SBAI20 M_SBAI19 M_SBAI18 M_SBAI17 M_SBAI16 M_SBAI15 M_SBAI14 M_SBAI13 M_SBAI12 M_SBAI11 M_SBAI10 M_SBAI9 M_SBAI8 M_SBAI7 M_SBAI6 M_SBAI5 M_SBAI4 M_SBAI3 M_SBAI2 M_SBAI1

SBWE_N A31
SBOE_N L33

SBCE7_N M33
SBCE6_N M32
SBCE5_N M31
SBCE4_N M30
SBCE3_N N30
SBCE2_N N31
SBCE1_N N32
SBCE0_N N33

SBBE1_N P32
SBBE0_N P33

SBCLK1 P31
SBCLK0 P30

+3.3V
R167 1M(J) NOT MOUNT

+3.3V NOT MOUNT
R166 1M(J)

R34 47(J) M_SBWE1 — for FLASHROM
R134 47(J) M_SBOE1 — for FLASHROM
R135 47(J) M_SBOE2 — for 1394Phy,Enc

[VHC244]
IC16
EN1
EN2
GND_D
W10
W11
[0] [1] [2] [3] [0] [1] [2] [3]
[Vcc] [Vss]

R132 47(J) M_SBWE4 — for IR PLD
R130 47(J) M_SBWE3 — for SD/SM
R131 47(J) M_SBWE2 — for 1394 phy, Cp
R136 47(J) M_SBOE3 — for SD/SM

[RMX4A] RM22 47(J)
M_SBCE6 M_SBCE5 M_SBCE4 M_SBCE3

+3.3V
C22 0.1uF
GND_D

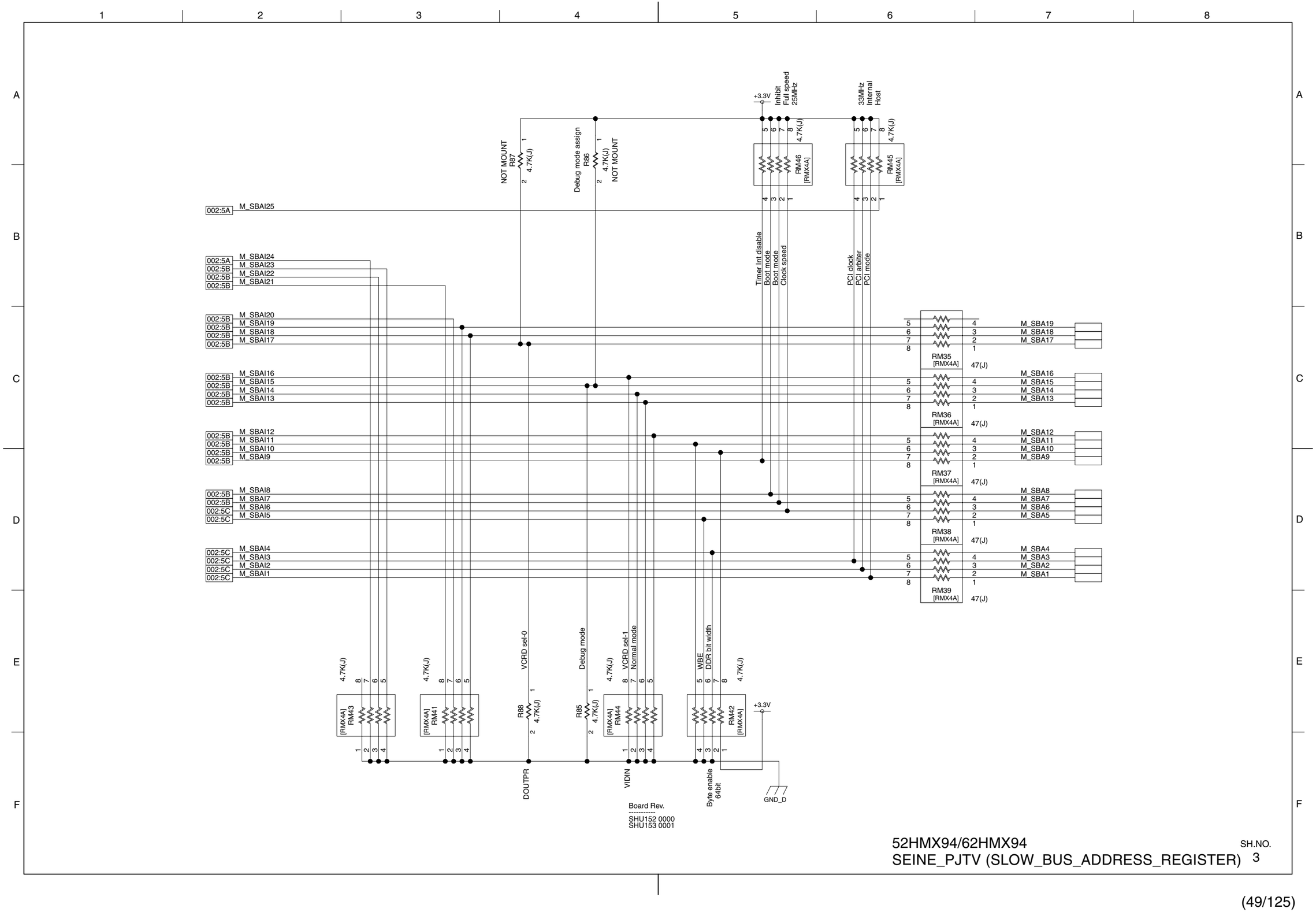
[TP] DP10
[TP] DP42

CE0:Boot PCB or NAND
CE1:NAND or Boot PCB
CE2:uPD61051GD
CE3:MB86619
CE4:IR PLD
CE5:TC6384AF-0001
CE6:POD PLD
CE7: N/A

+3.3V
R25 4.7K(J)
R26 22(J)
013:5C M_SBACK

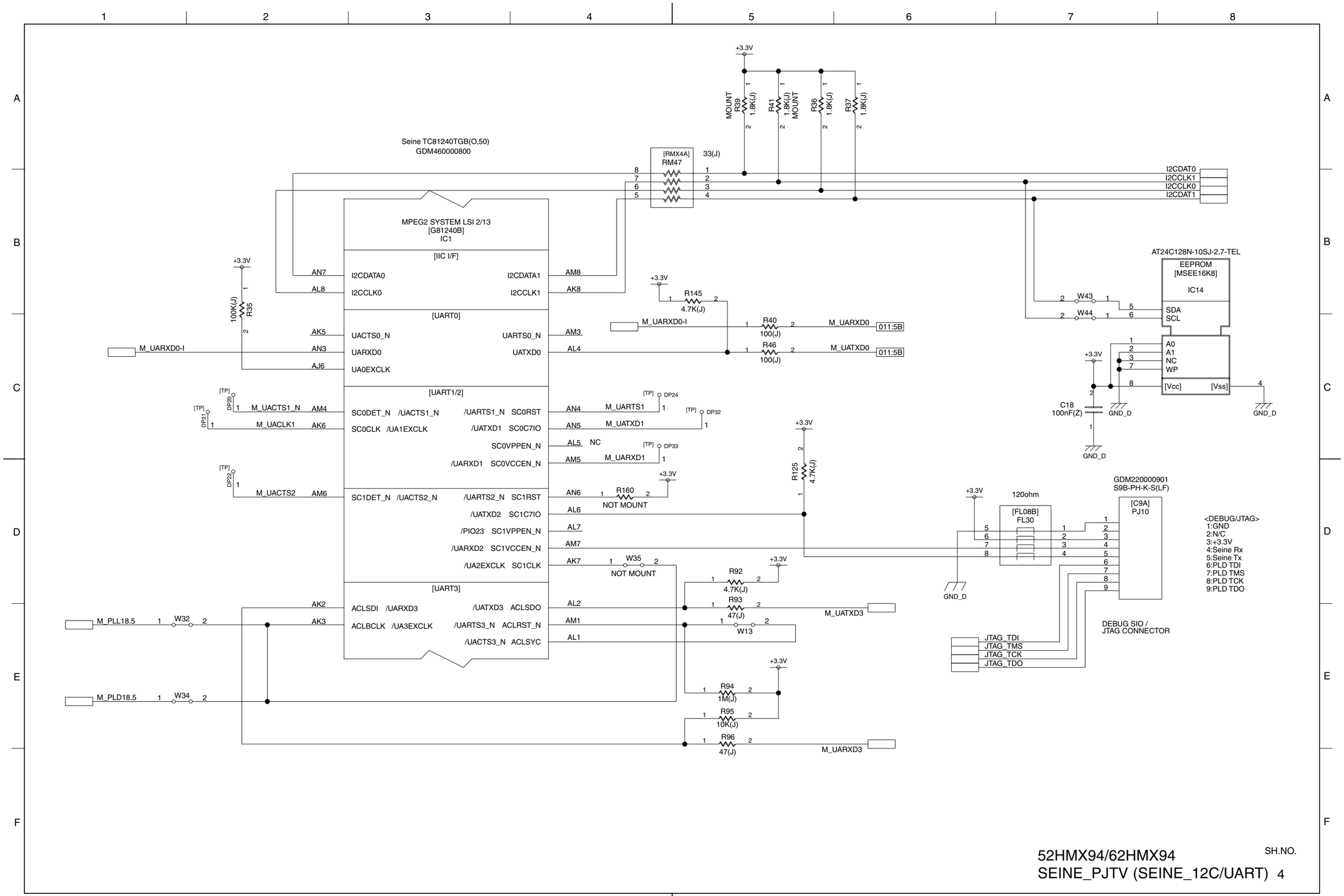
R75 47(J) M_SBCE2
R16 47(J) M_EXTROMCE 006:5C
R29 47(J) M_BROMCE 007:3A
R58 47(J) M_SBBE1 013:8C
R59 47(J) M_SBBE0 013:5C
R32 47(J) for 1394 chips M_SBCLK0 008:5A 013:5C

52HMX94/62HMX94
SEINE_PJTV (SLOW_BUS)
SH.NO. 2



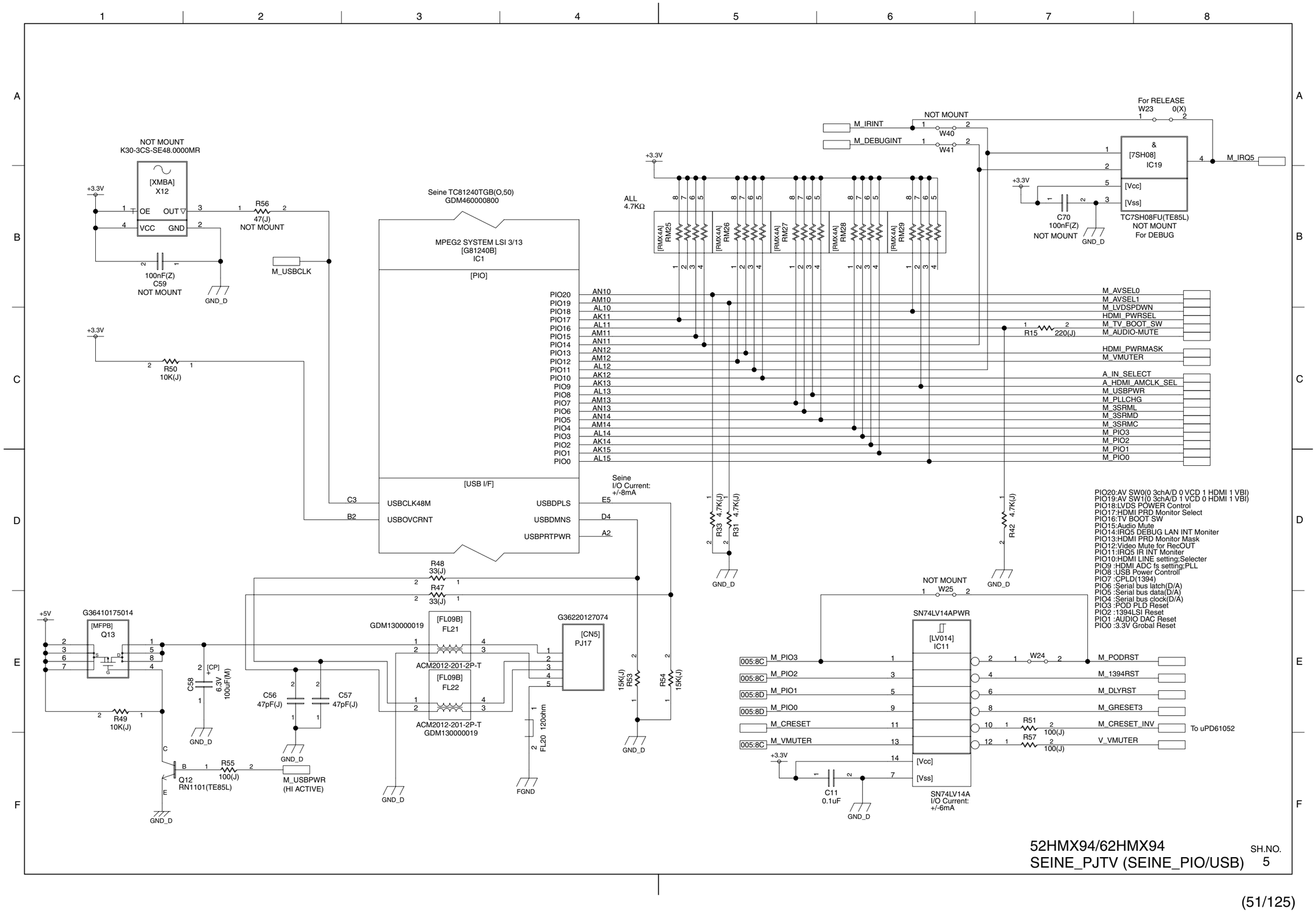
52HMX94/62HMX94
SEINE_PJTV (SLOW_BUS_ADDRESS_REGISTER)

SH.NO. 3



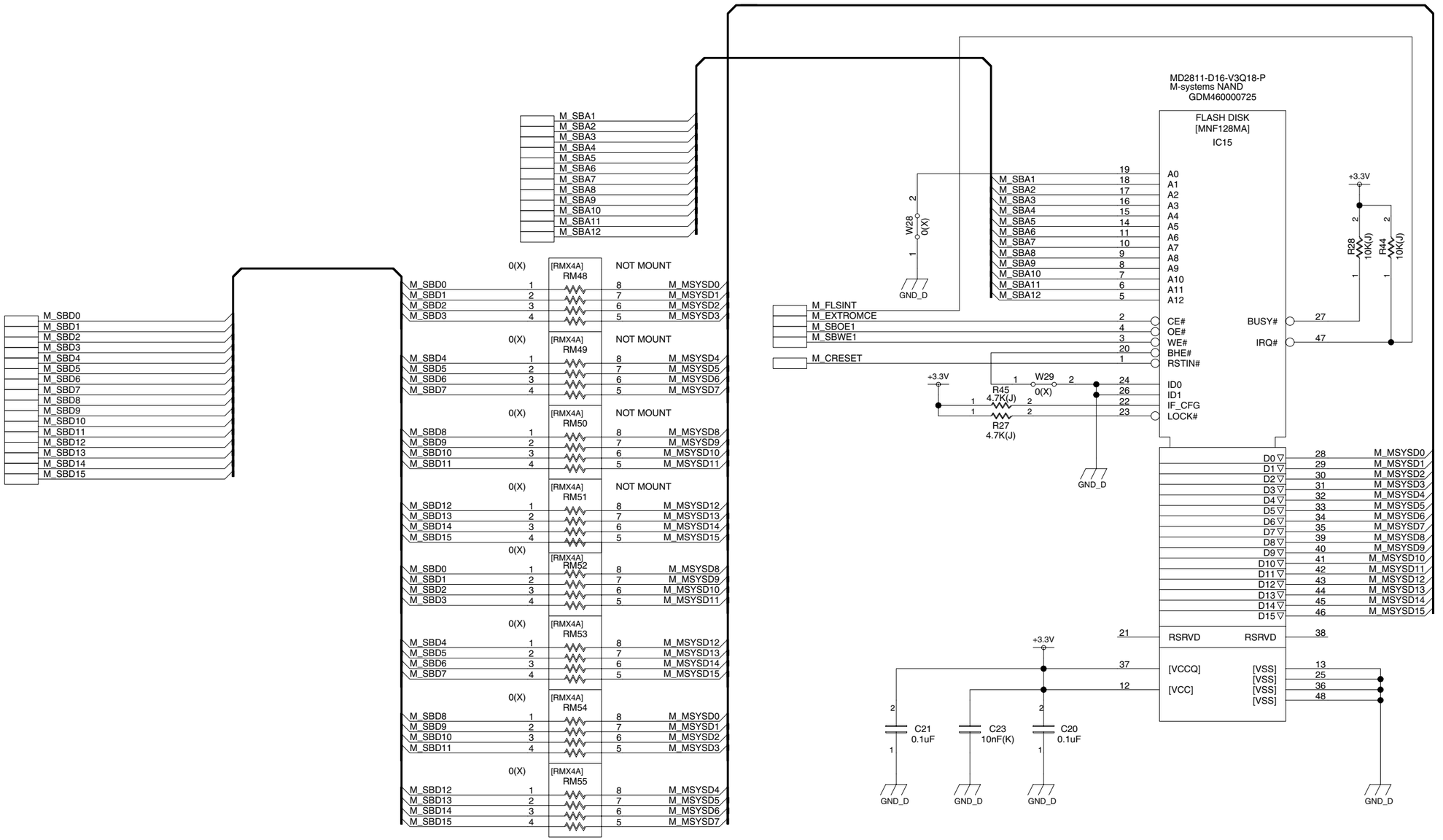
52HMX94/62HMX94
SEINE_PJTV (SEINE_12C/UART) 4

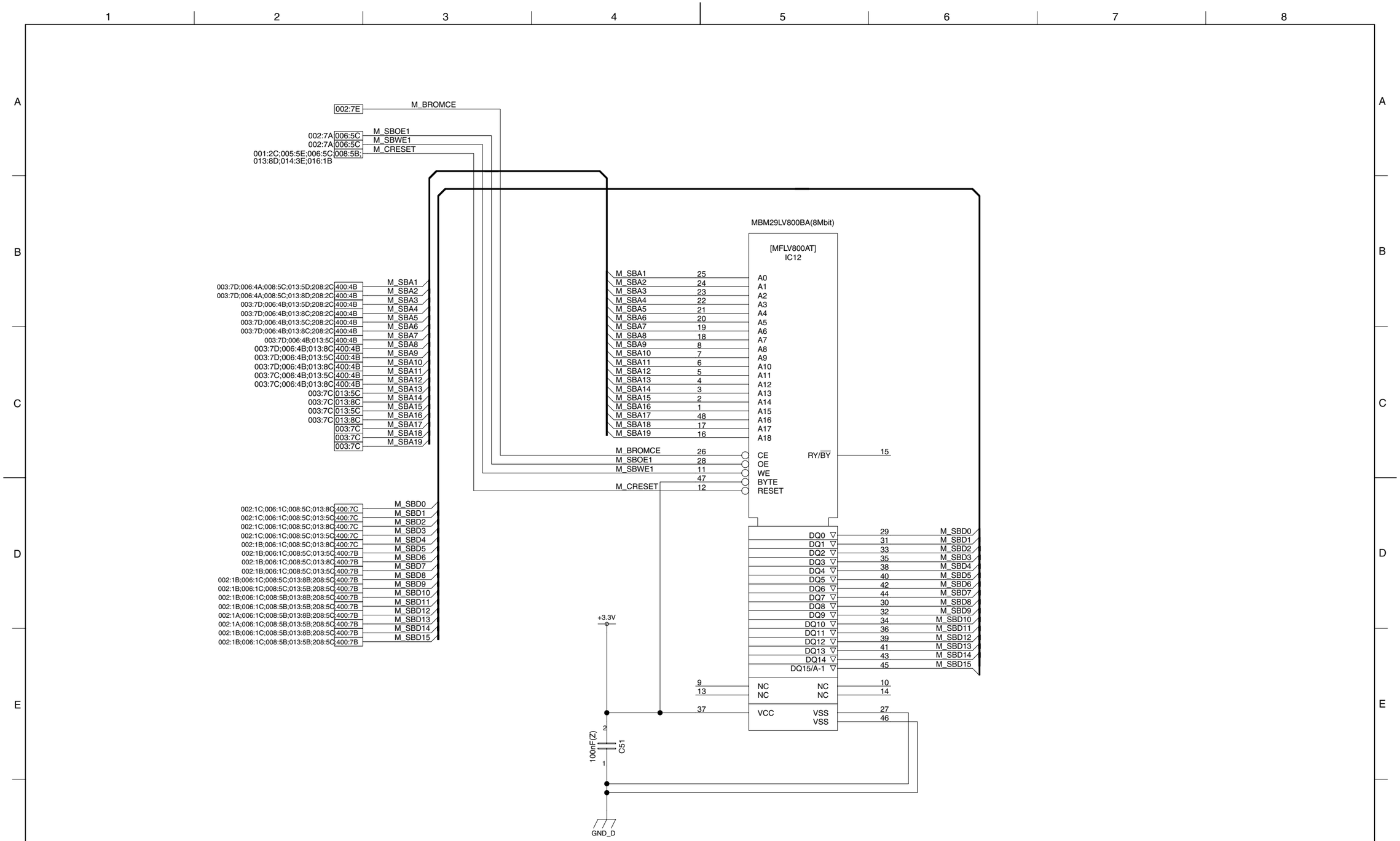
SH.NO.



52HMX94/62HMX94
SEINE_PJTV (SEINE_PIO/USB)

SH.NO. 5


M_SBA1
M_SBA2
M_SBA3
M_SBA4
M_SBA5
M_SBA6
M_SBA7
M_SBA8
M_SBA9
M_SBA10
M_SBA11
M_SBA12
M_SBD0
M_SBD1
M_SBD2
M_SBD3
M_SBD4
M_SBD5
M_SBD6
M_SBD7
M_SBD8
M_SBD9
M_SBD10
M_SBD11
M_SBD12
M_SBD13
M_SBD14
M_SBD15
0(X)
[RMX4A]
RM48
NOT MOUNT
M_MSYSD0
M_MSYSD1
M_MSYSD2
M_MSYSD3
RM49
M_MSYSD4
M_MSYSD5
M_MSYSD6
M_MSYSD7
RM50
M_MSYSD8
M_MSYSD9
M_MSYSD10
M_MSYSD11
RM51
M_MSYSD12
M_MSYSD13
M_MSYSD14
M_MSYSD15
RM52
RM53
RM54
RM55
MD2811-D16-V3Q18-P
M-systems NAND
GDM460000725
FLASH DISK
[MNF128MA]
IC15
W28
GND_D
M_FLSINT
M_EXTROMCE
M_SBOE1
M_SBWE1
M_CRESET
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
CE#
OE#
WE#
BHE#
RSTIN#
ID0
ID1
IF_CFG
LOCK#
+3.3V
R45
4.7K(J)
W29
R27
4.7K(J)
R28
10K(J)
R44
10K(J)
BUSY#
IRQ#
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
D15
RSRVD
[VCCQ]
[VCC]
[VSS]
C21
0.1uF
C23
10nF(K)
C20
0.1uF



52HMX94/62HMX94 SH.NO.
SEINE_PJTV (ROM/FLASH) 7

GDM450000318
XC95144XL-10TQG144C

[G95144TQ144]
IC17

002:7F	013:5C	M_SBCLK0	30	IO/GCK1	I/O048	68	
	005:2B	M_PLL48	32	IO/GCK2	I/O049	69	
			38	IO/GCK3	I/O050	70	HDMI_PWRAN
			5	IO/GTS1	I/O051	71	HDMI_PWRBN
			6	IO/GTS2	I/O052	74	
			2	IO/GTS3	I/O053	75	
			3	IO/GTS4	I/O054	76	
001:2C;005:5E;006:5C;007:3A; 013:8D;014:3E;016:1B		M_CRESET	143	IO/GSR	I/O055	77	
					I/O056	78	
		V_TCK	67	TCK	I/O057	79	
Fm AVSW		V_TDI2	63	TDI	I/O058	80	
To POD		V_TDI3	122	TDO	I/O059	81	
		V_TMS	65	TMS	I/O060	82	
For BYPASS		V_TDI3I			I/O061	83	
					I/O062	85	
			4	I/O001	I/O063	86	
			7	I/O002	I/O064	87	
002:1B;006:1C;007:3E;013:5B;208:5C	400:7B	M_SBD15	9	I/O003	I/O065	88	
002:1B;006:1C;007:3E;013:8B;208:5C	400:7B	M_SBD14	10	I/O004	I/O066	91	M_UARXD3_SW 004:6E
002:1A;006:1C;007:3D;013:5B;208:5C	400:7B	M_SBD13	11	I/O005	I/O067	92	
002:1A;006:1C;007:3D;013:8B;208:5C	400:7B	M_SBD12	12	I/O006	I/O068	93	
002:1B;006:1C;007:3D;013:5B;208:5C	400:7B	M_SBD11	13	I/O007	I/O069	94	
002:1B;006:1C;007:3D;013:8B;208:5C	400:7B	M_SBD10	14	I/O008	I/O070	95	
002:1B;006:1C;007:3D;013:5B;208:5C	400:7B	M_SBD9	15	I/O009	I/O071	96	
002:1B;006:1C;007:3D;013:8B;208:5C	400:7B	M_SBD8	16	I/O010	I/O072	97	
002:1B;006:1C;007:3D;013:5C	400:7B	M_SBD7	17	I/O011	I/O073	98	M_UATXD3_SW 004:6E
002:1B;006:1C;007:3D;013:8C	400:7B	M_SBD6	19	I/O012	I/O074	100	
002:1B;006:1C;007:3D;013:5C	400:7B	M_SBD5	20	I/O013	I/O075	101	
002:1B;006:1C;007:3D;013:8C	400:7B	M_SBD4	21	I/O014	I/O076	102	
002:1C;006:1C;007:3D;013:5C	400:7C	M_SBD3	22	I/O015	I/O077	103	
002:1C;006:1C;007:3D;013:8C	400:7C	M_SBD2	23	I/O016	I/O078	104	
002:1C;006:1C;007:3D;013:5C	400:7C	M_SBD1	24	I/O017	I/O079	105	
002:1C;006:1C;007:3D;013:8C	400:7C	M_SBD0	25	I/O018	I/O080	106	
	002:8B	M_SBWE4	26	I/O019	I/O081	107	
	002:8C	M_SBCE4	27	I/O020	I/O082	110	
			28	I/O021	I/O083	111	
003:7D;006:4A;007:3B;013:5D;208:2C	400:4B	M_SBA1	31	I/O022	I/O084	112	
003:7D;006:4A;007:3B;013:8D;208:2C	400:4B	M_SBA2	33	I/O023	I/O085	113	
			34	I/O024	I/O086	115	
	009:2B	M_IROUT	35	I/O025	I/O087	116	
	005:6A	M_IRINT	39	I/O026	I/O088	117	
			40	I/O027	I/O089	118	
004:1E		R91 47(J) NOT MOUNT	41	I/O028	I/O090	119	
M_PLD18.5			43	I/O029	I/O091	120	
			44	I/O030	I/O092	121	
			45	I/O031	I/O093	124	
			46	I/O032	I/O094	125	
			48	I/O033	I/O095	126	
			49	I/O034	I/O096	128	
			50	I/O035	I/O097	129	
			51	I/O036	I/O098	130	
			52	I/O037	I/O099	131	
			53	I/O038	I/O100	132	
			54	I/O039	I/O101	133	
			56	I/O040	I/O102	134	
			57	I/O041	I/O103	135	
			58	I/O042	I/O104	136	
			59	I/O043	I/O105	137	
			60	I/O044	I/O106	138	
			61	I/O045	I/O107	139	
			64	I/O046	I/O108	140	
			66	I/O047	I/O109	142	
			8	VCCINT	GND	18	
			42	VCCINT	GND	29	
			84	VCCINT	GND	36	
			141	VCCINT	GND	47	
					GND	62	
			1	VCCIO	GND	72	
			37	VCCIO	GND	89	
			55	VCCIO	GND	90	
			73	VCCIO	GND	99	
			109	VCCIO	GND	108	
			127	VCCIO	GND	114	
					GND	123	
					GND	144	

R90 47(J)

W50 0(X)

+3.3V

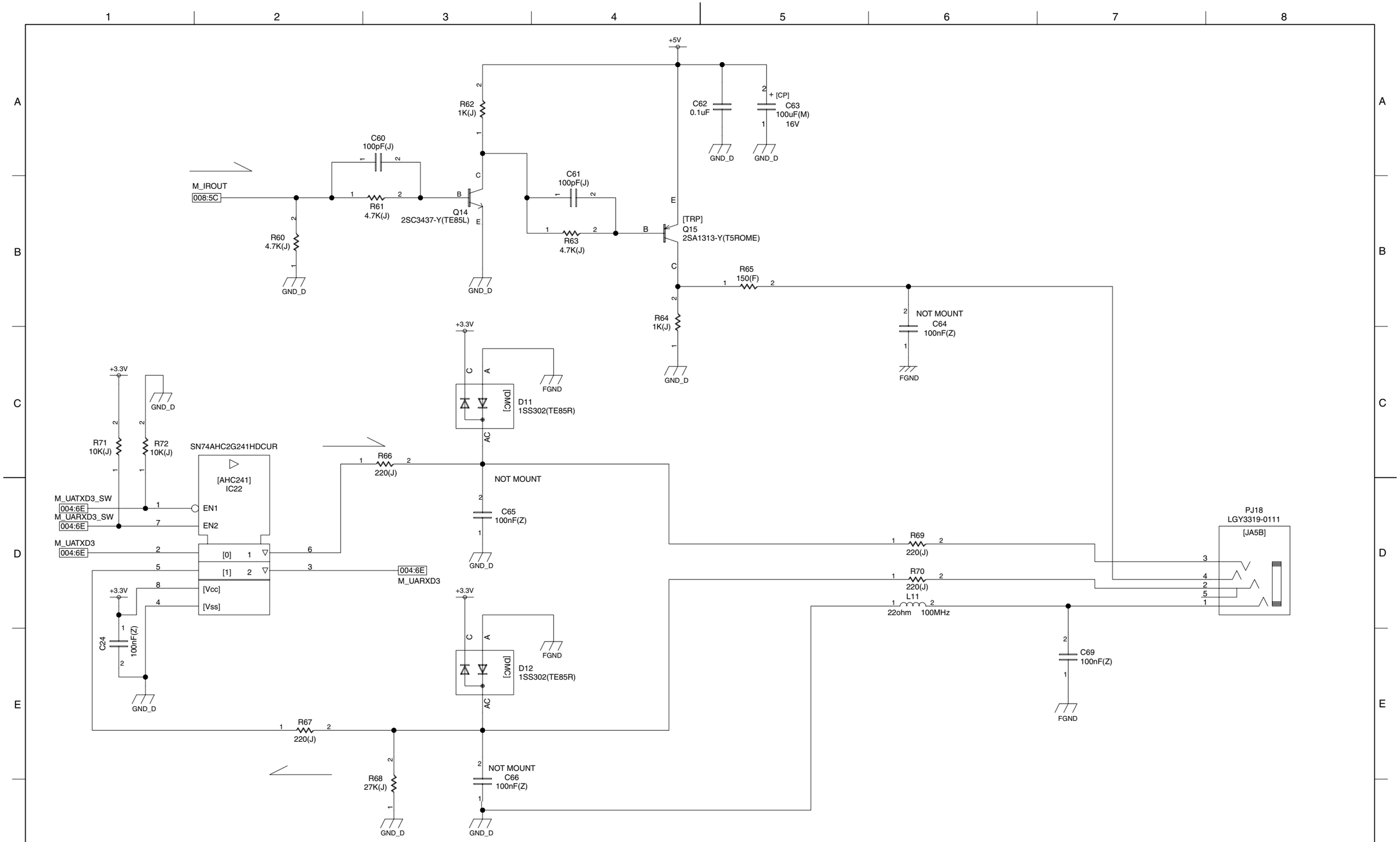
GND_D

+3.3V

C90 100nF(Z)
C91 100nF(Z)
C92 100nF(Z)
C93 100nF(Z)
C94 100nF(Z)
C95 100nF(Z)
C96 100nF(Z)
C97 100nF(Z)
C98 100nF(Z)
C99 100nF(Z)

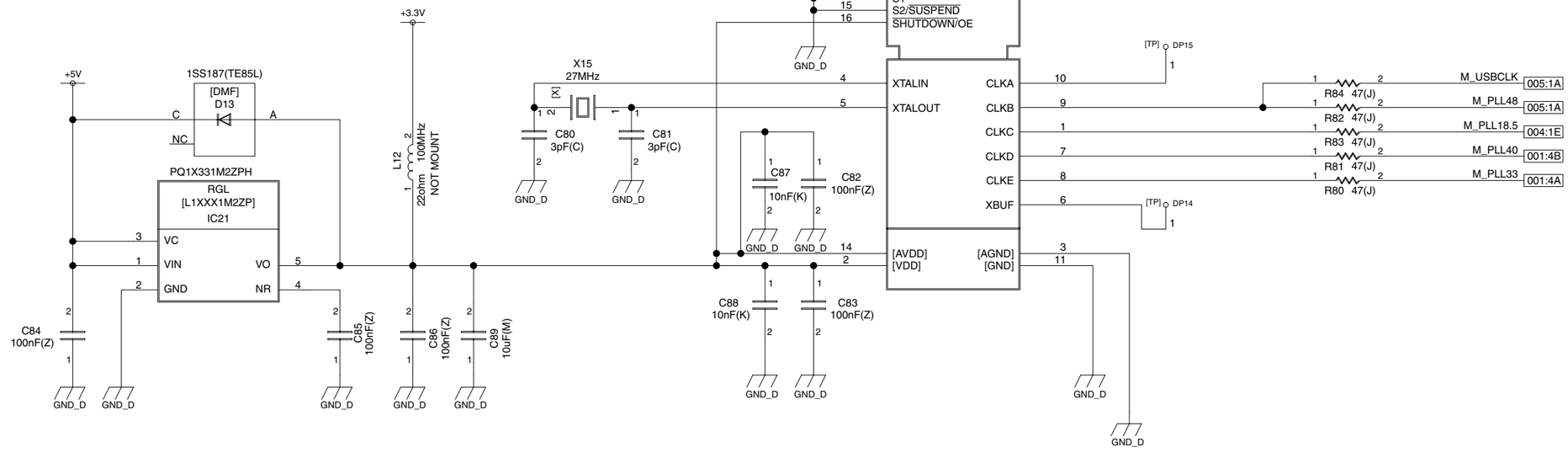
GND_D

52HMX94/62HMX94 SH.NO.
SEINE_PJTV (GUNK_PWM-PLD) 8



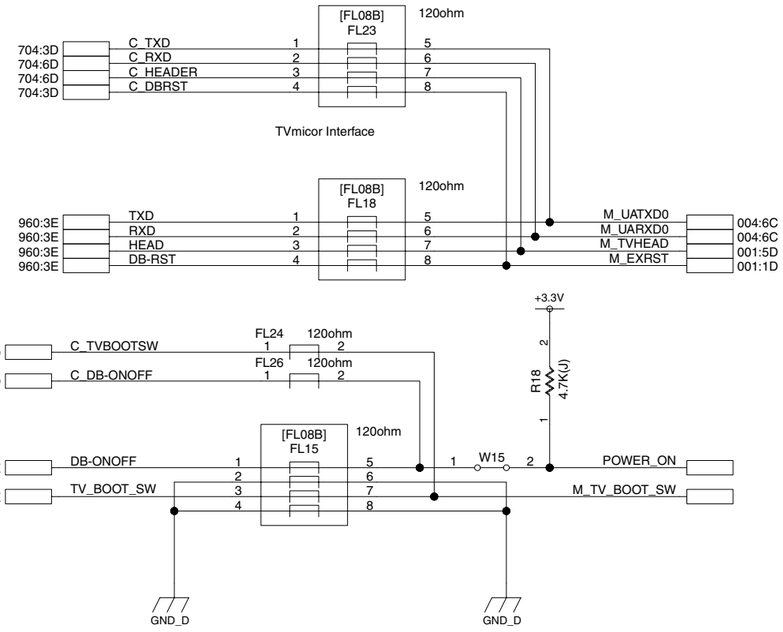
52HMX94/62HMX94
SEINE_PJTV (GLINK_IR-OUT)

SH.NO. 9

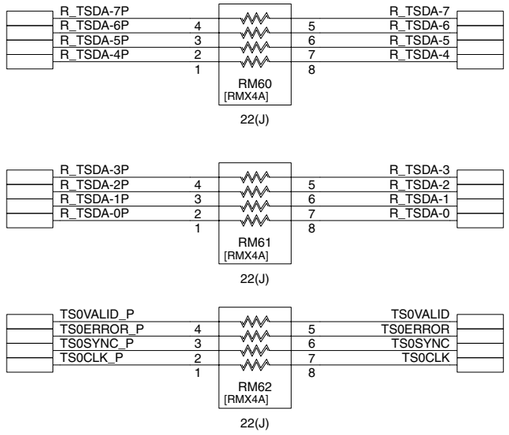


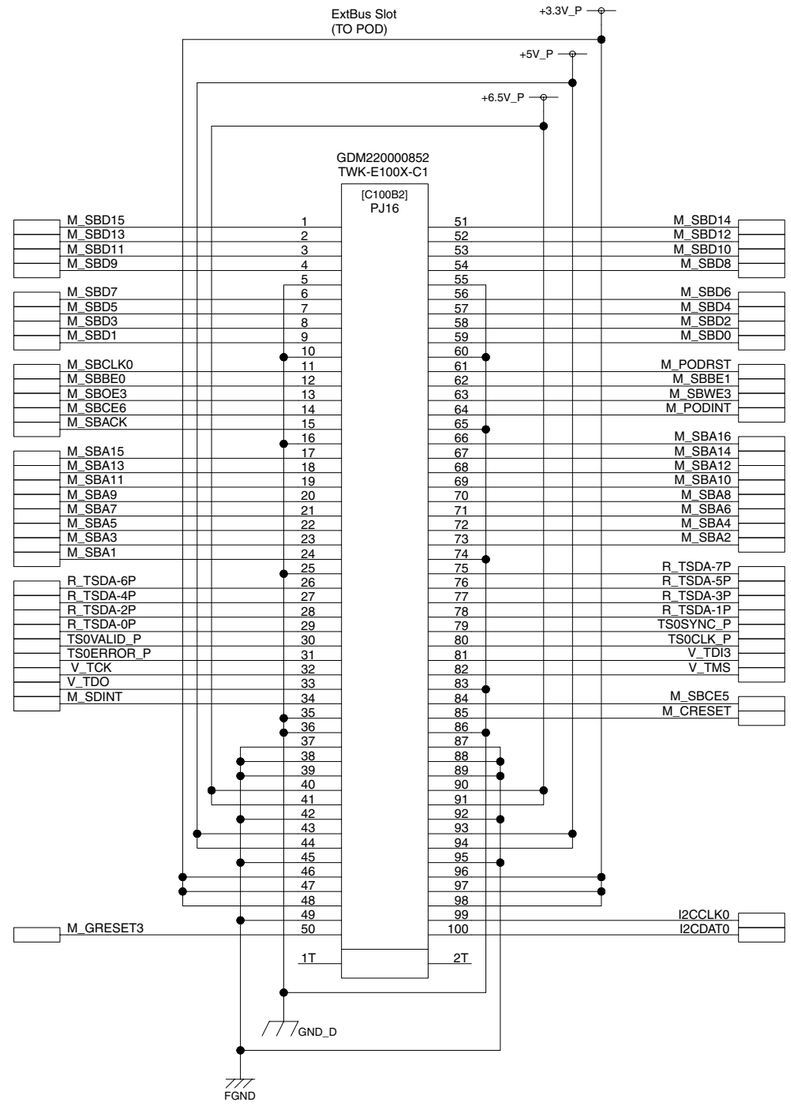
52HMX94/62HMX94
SEINE_PJTV (CLOCK_GENERATOR)

SH.NO. 10



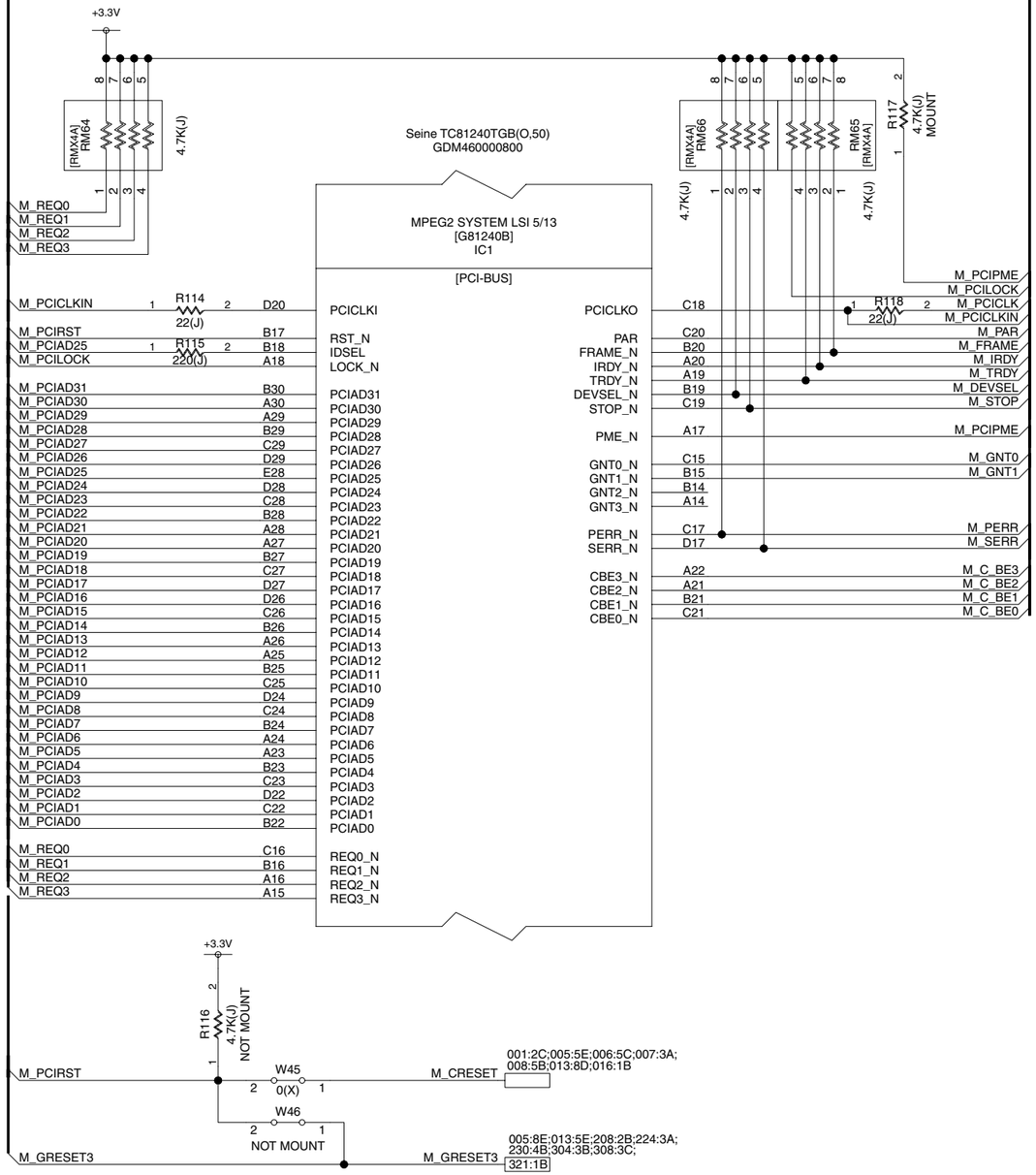
52HMX94/62HMX94 SH.NO.
SEINE_PJTV (TV_MICON_I/F) 11





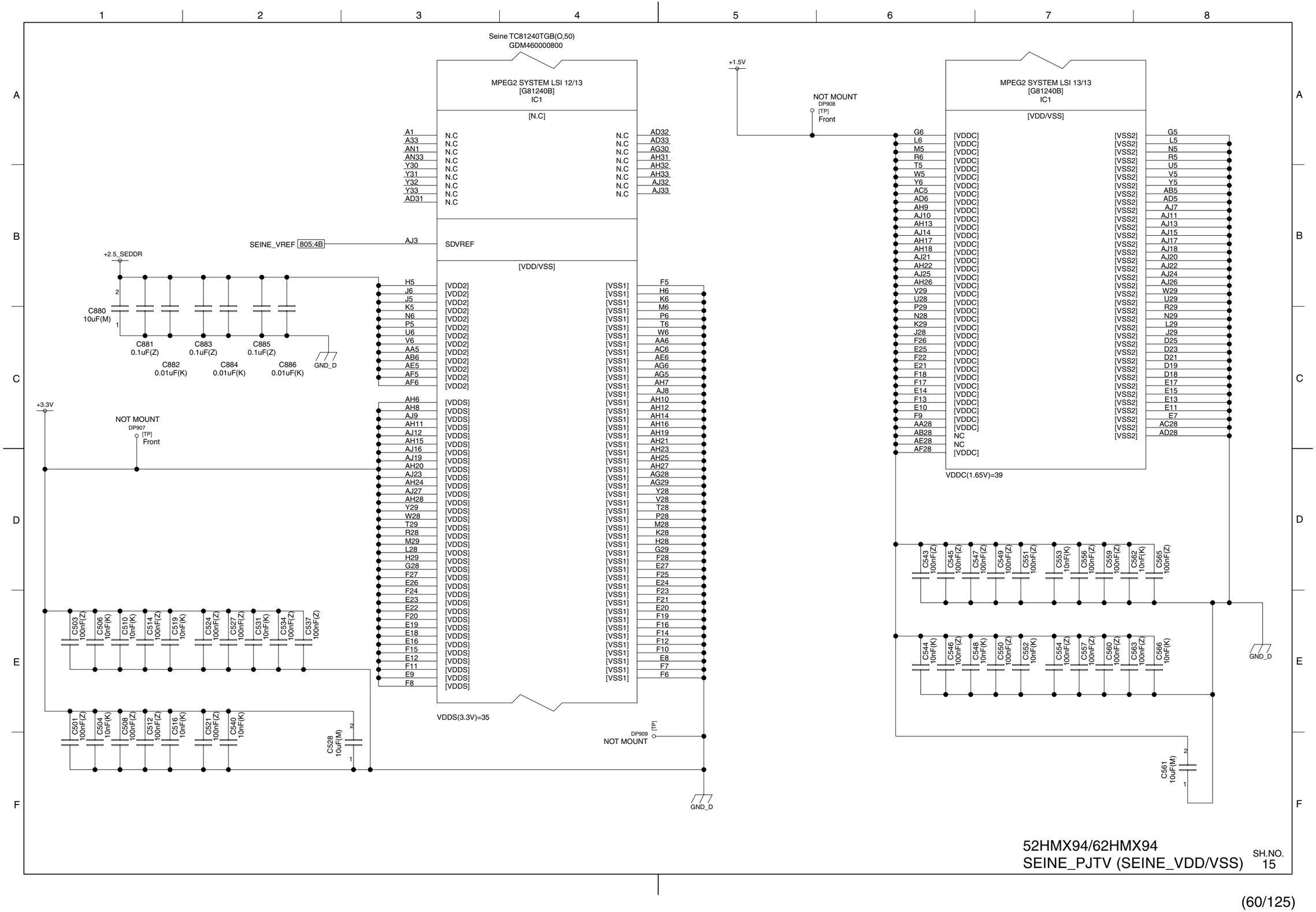
52HMX94/62HMX94
SEINE_PJTV (HOST_BUS_CONNECTOR)

SH.NO.
13



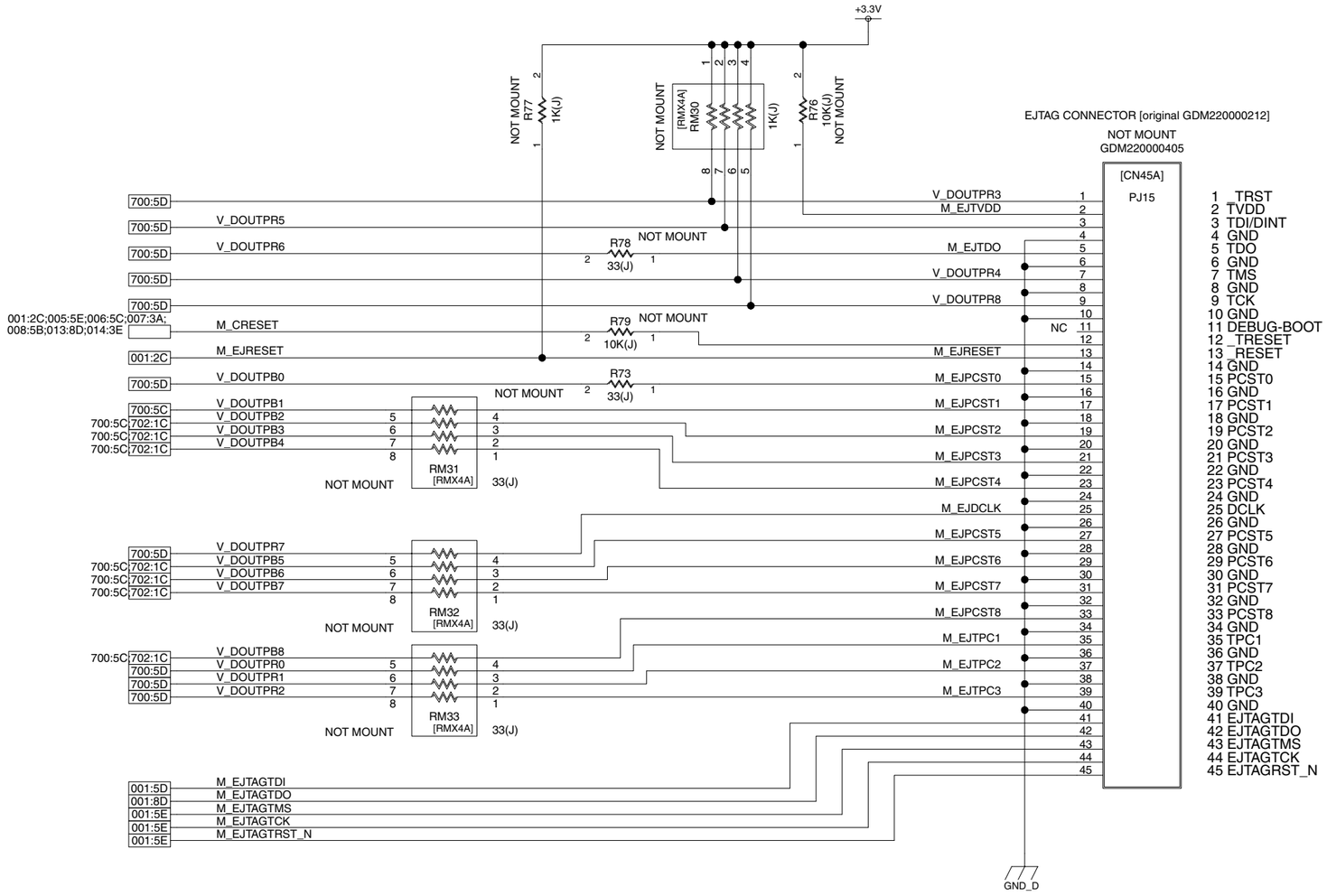
52HMX94/62HMX94
SEINE_PJTV (SEINE_PCI_BUS)

SH.NO. 14



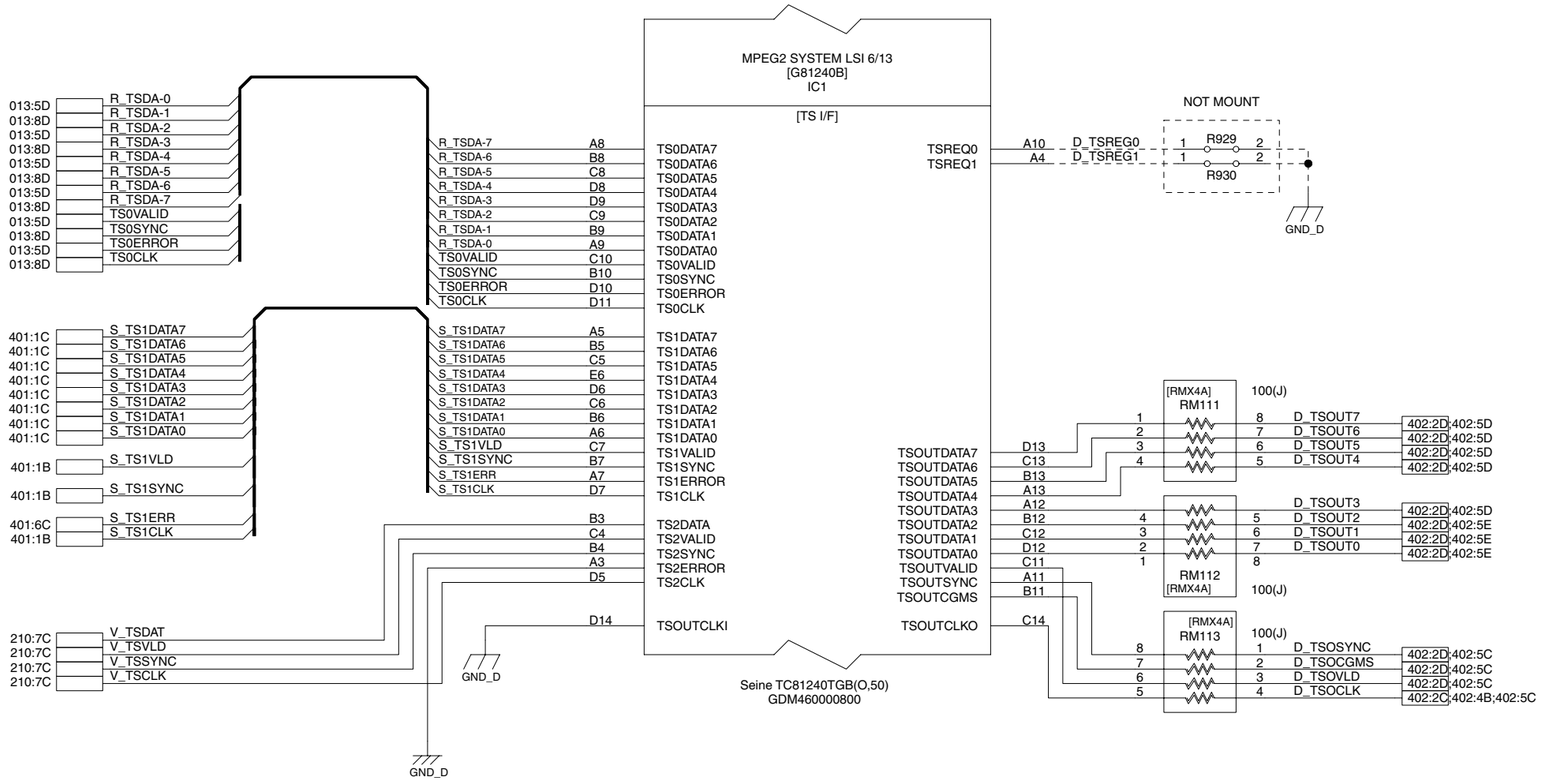
52HMX94/62HMX94
SEINE_PJTV (SEINE_VDD/VSS)

SH.NO. 15



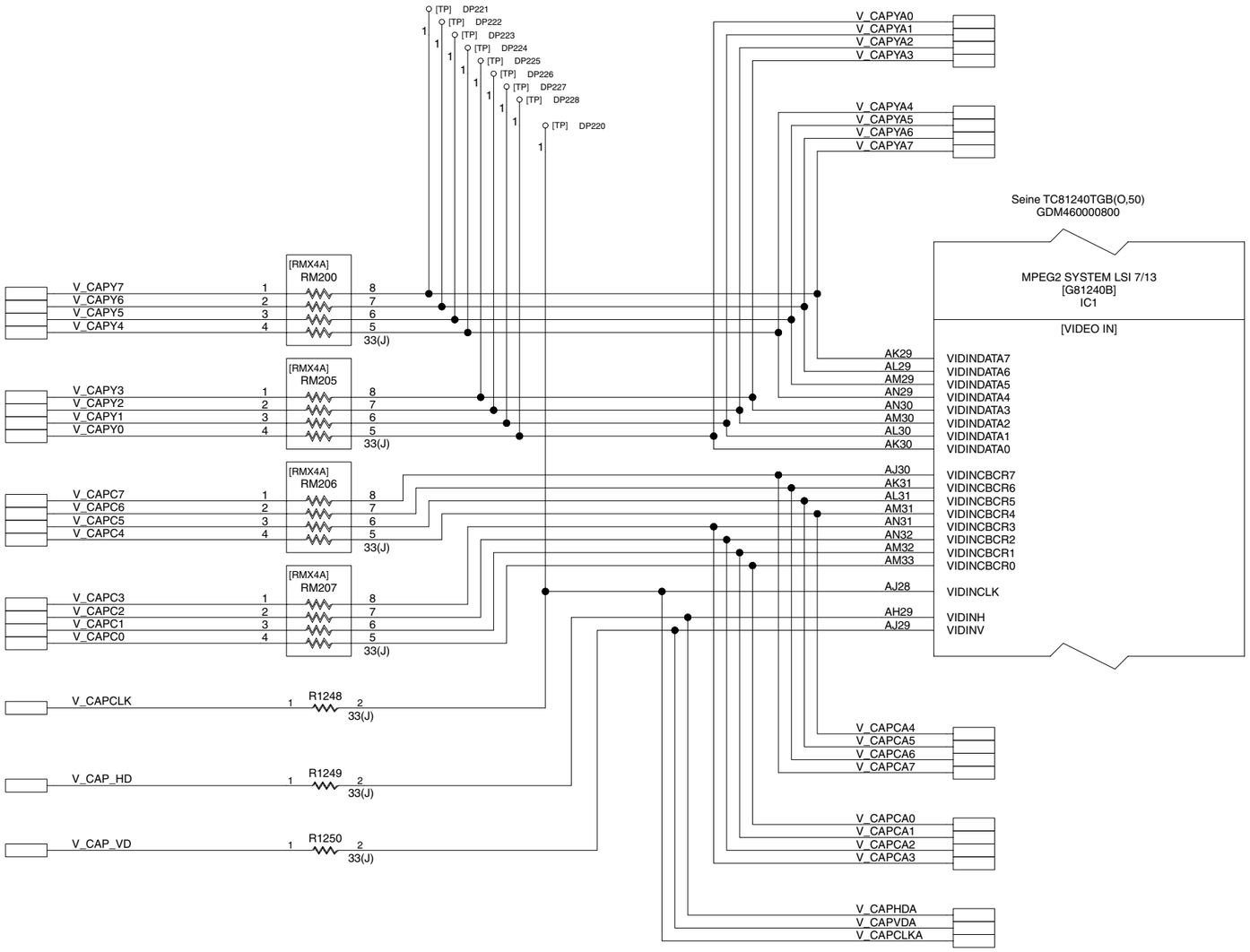
52HMX94/62HMX94
SEINE_PJTV (EJTAG_CONNECTOR)

SH.NO. 16

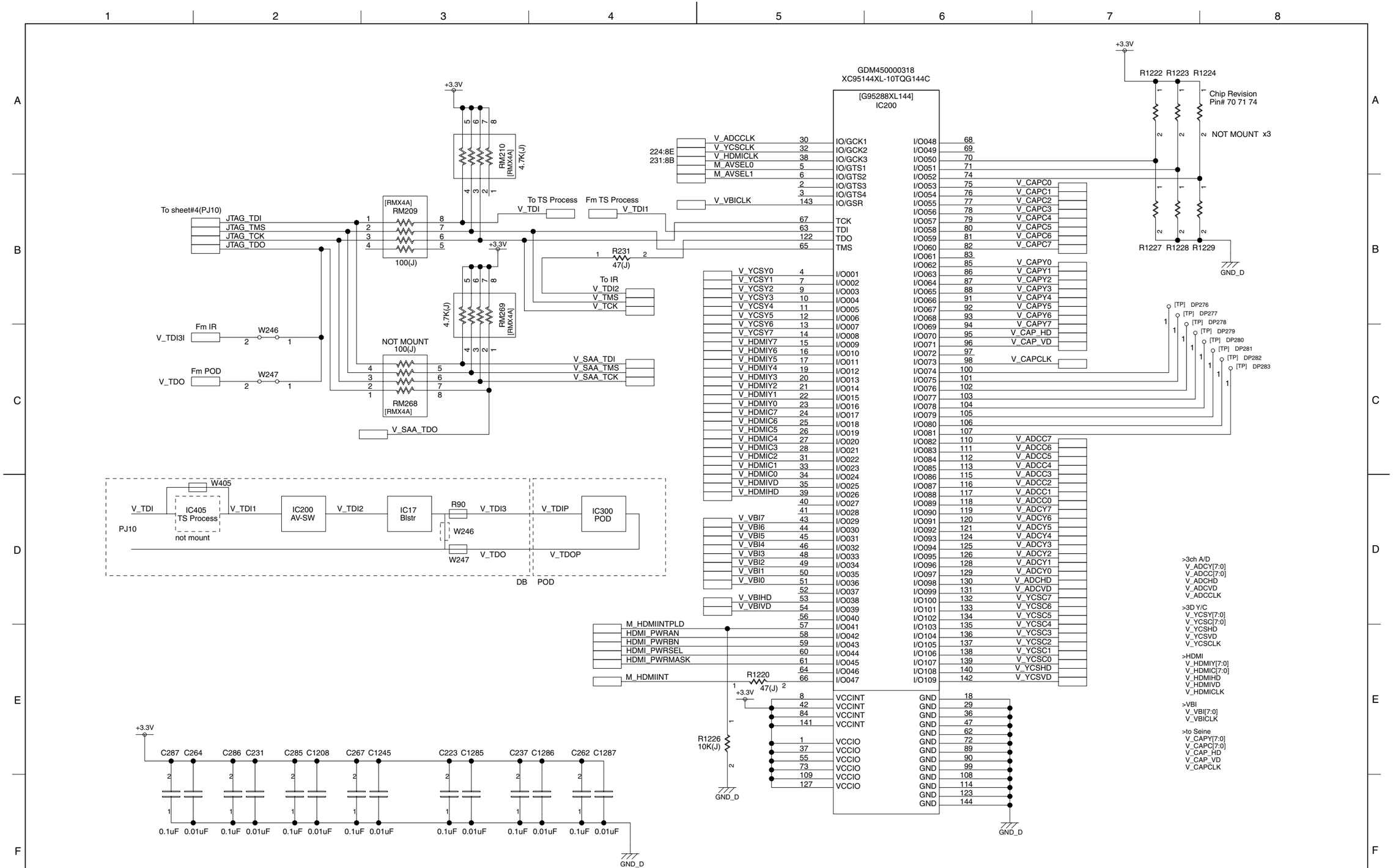


52HMX94/62HMX94
SEINE_PJTV (SEINE_TS_I/F)

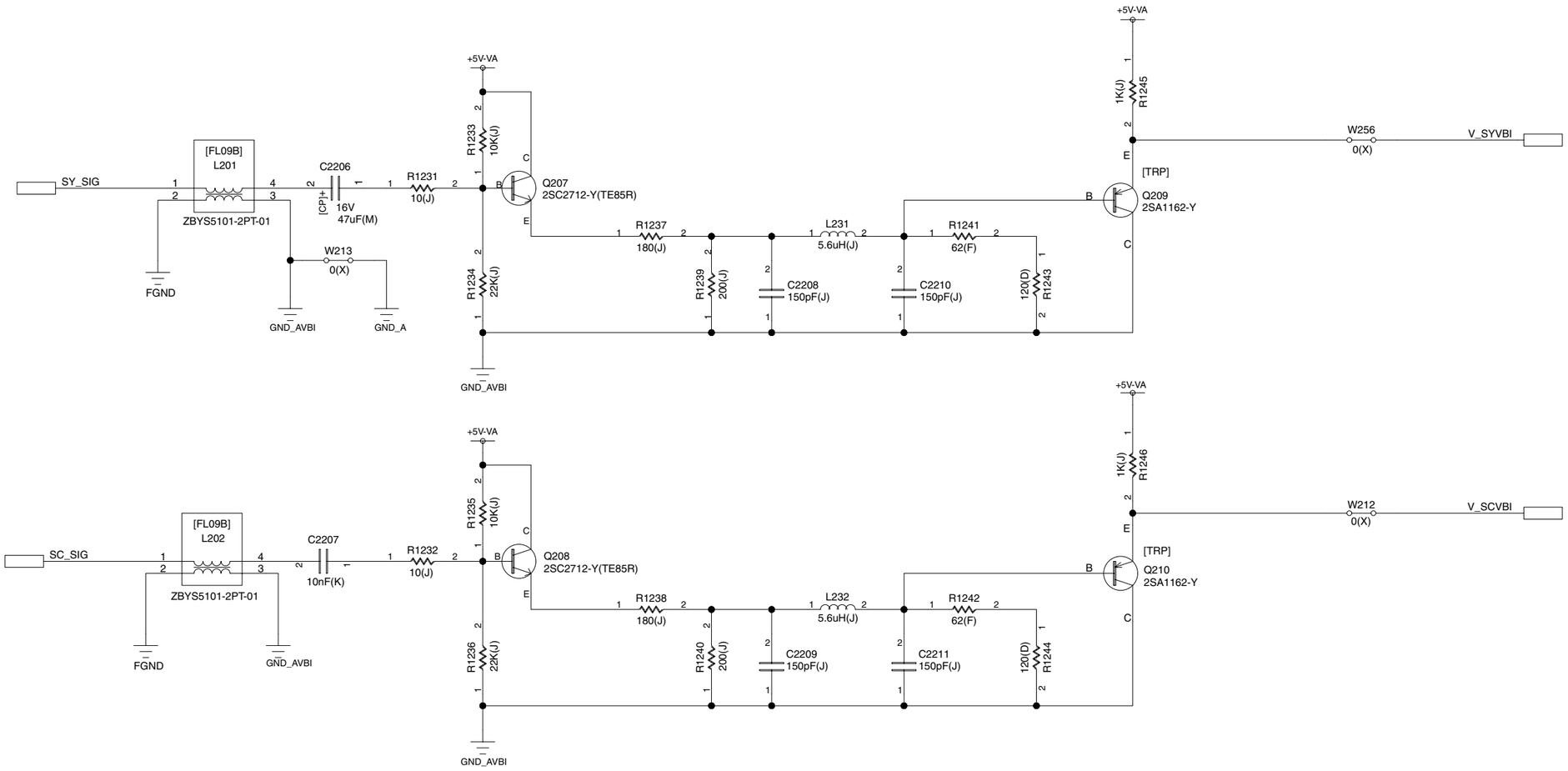
SH.NO.
110



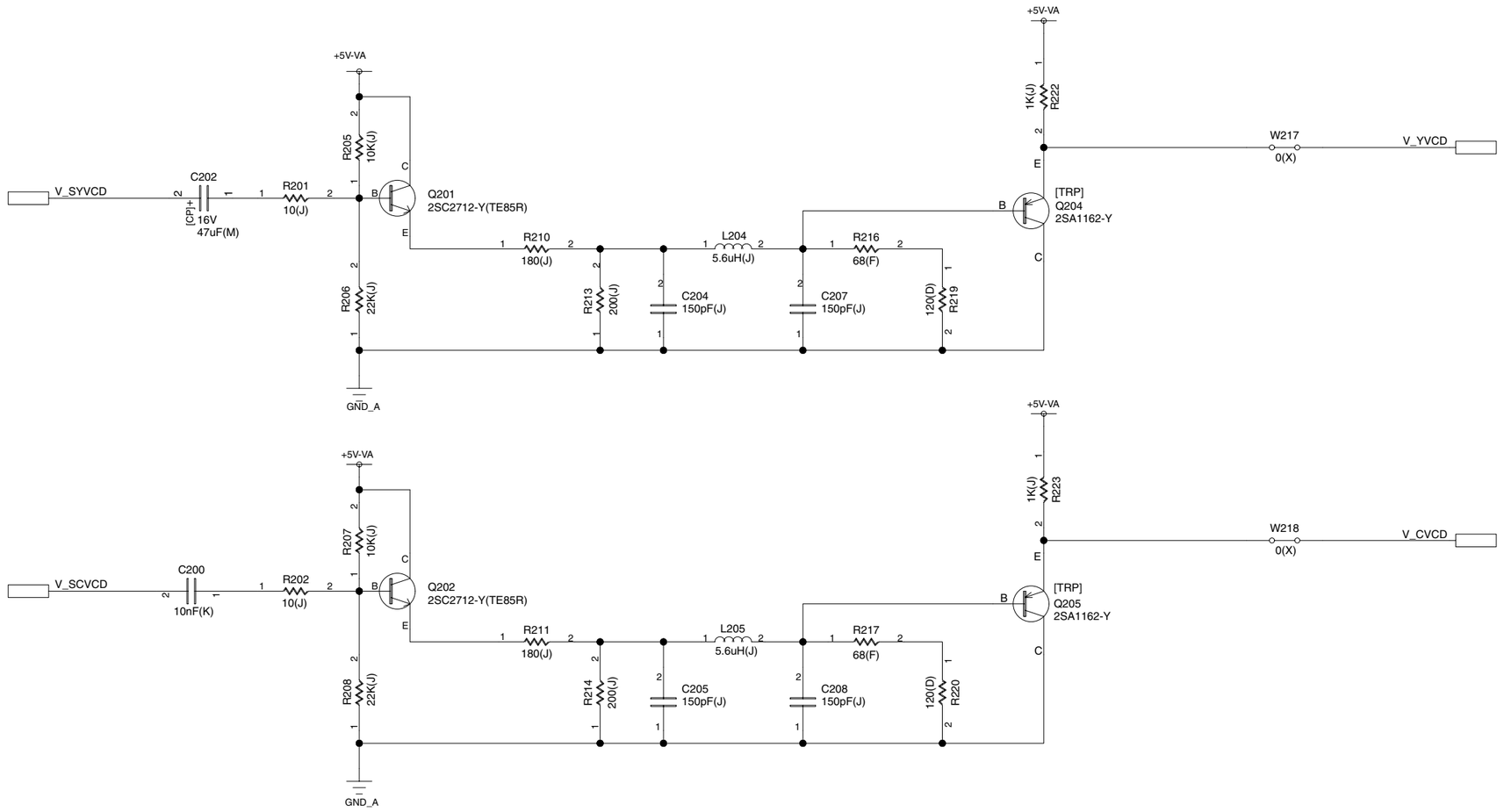
52HMX94/62HMX94 SH.NO.
SEINE_PJTV (SEINE_CAPTURE_IN) 200



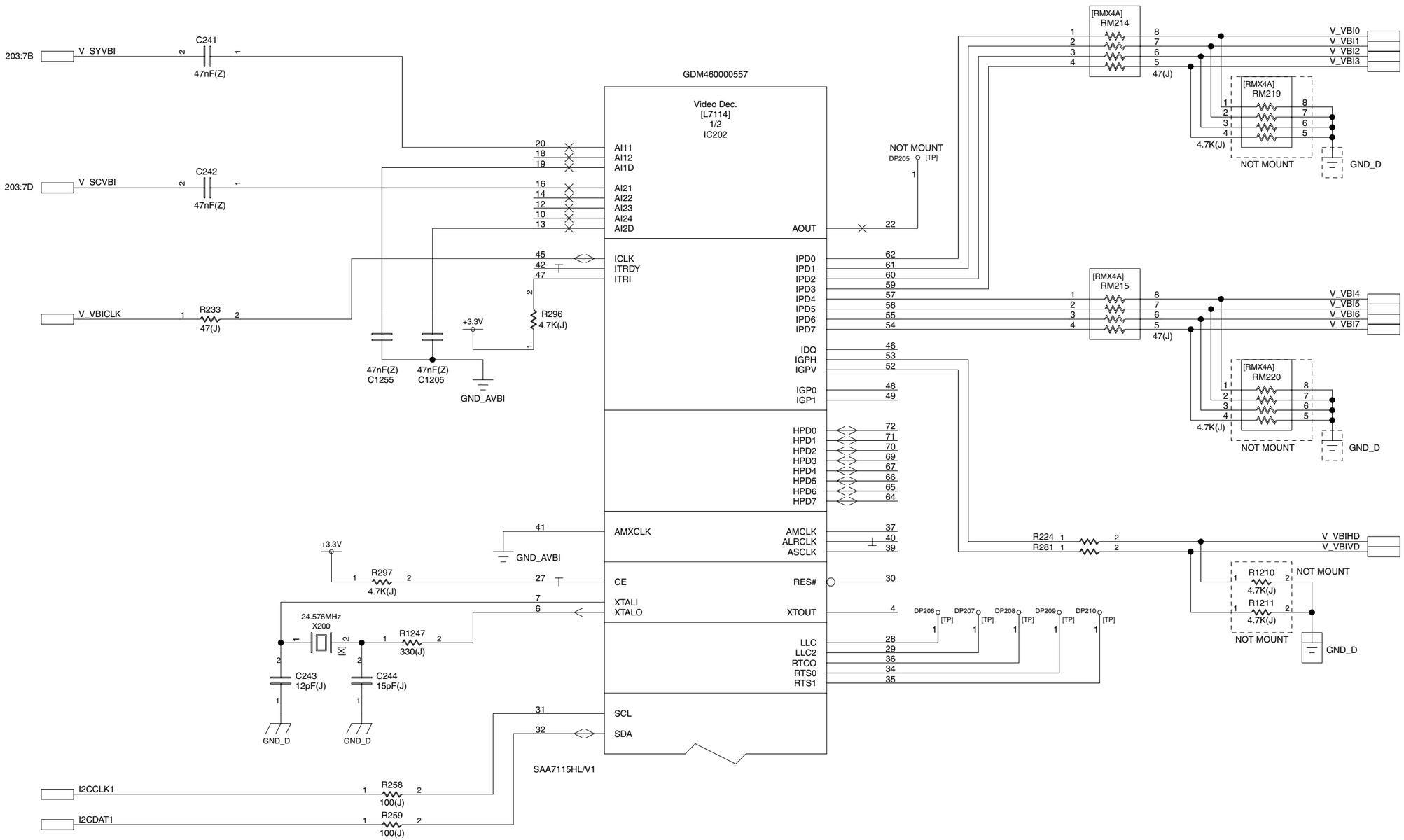
52HMX94/62HMX94
SEINE_PJTV (CPLD-VIDEO_SW) SH.NO. 202



52HMX94/62HMX94 SH.NO.
SEINE_PJTV (VIDEO_LPF_VBL) 203

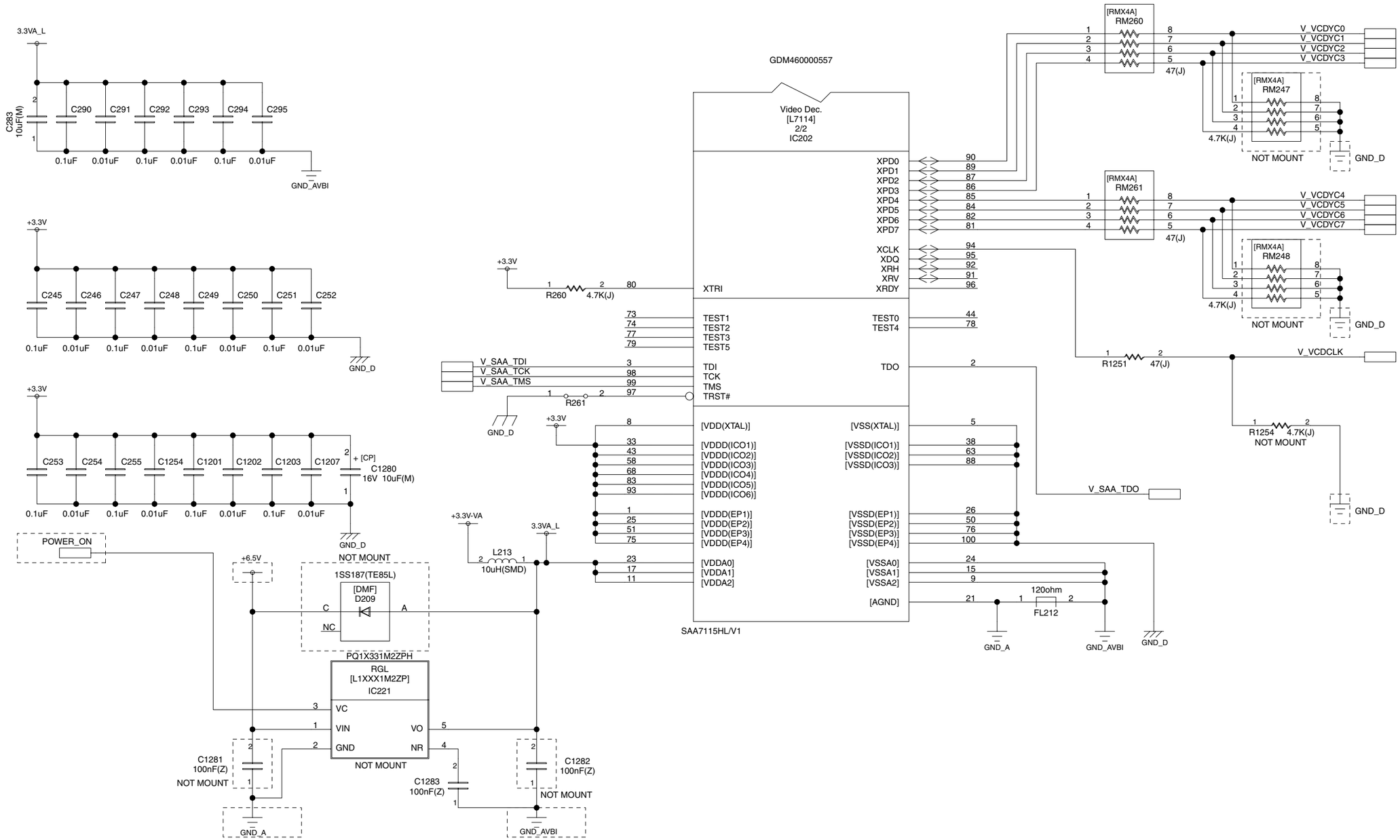


52HMX94/62HMX94 SH.NO.
SEINE_PJTV (VIDEO_LPF_VCD) 204



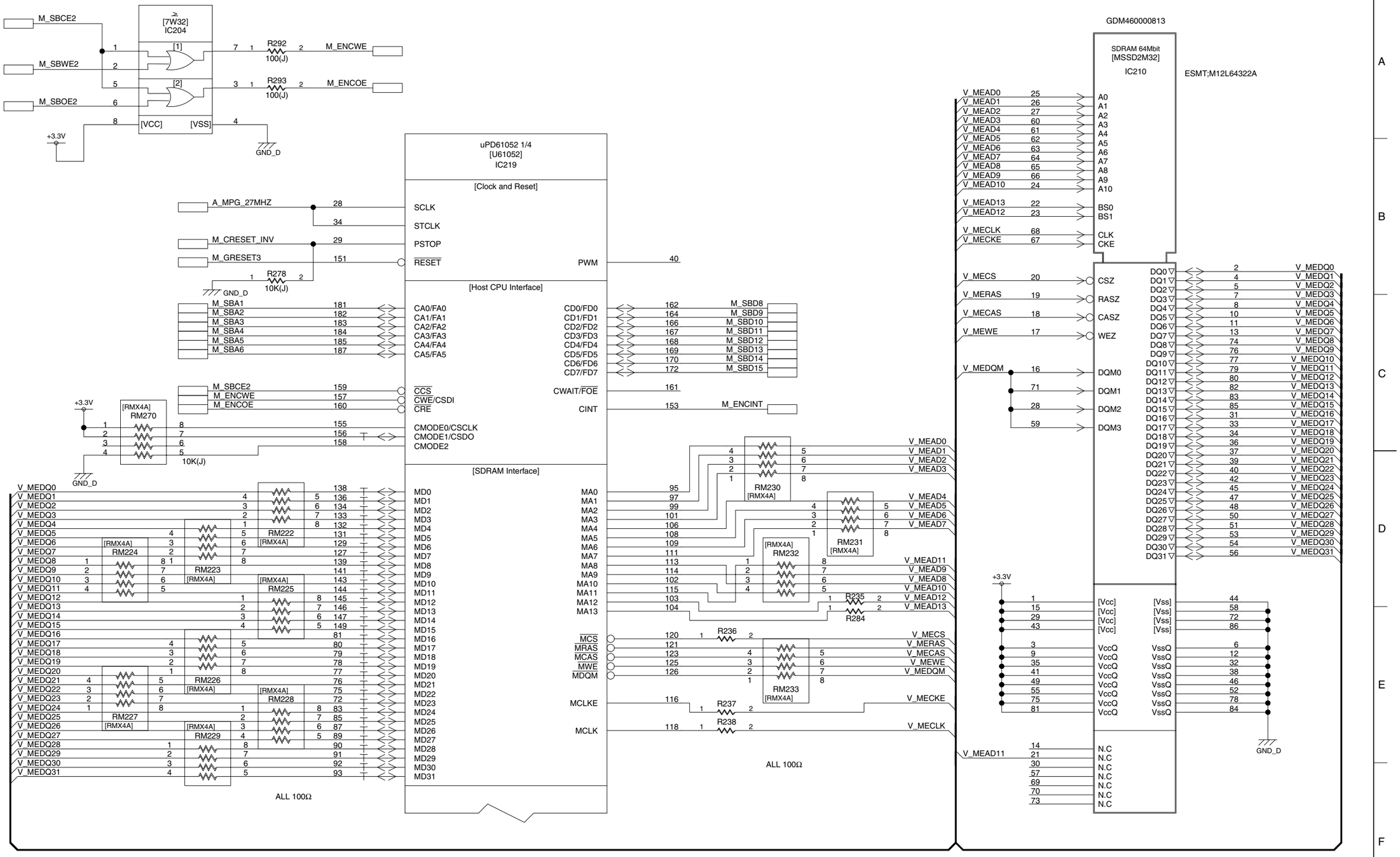
52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-NTSDECORDER1)

SH.NO. 205

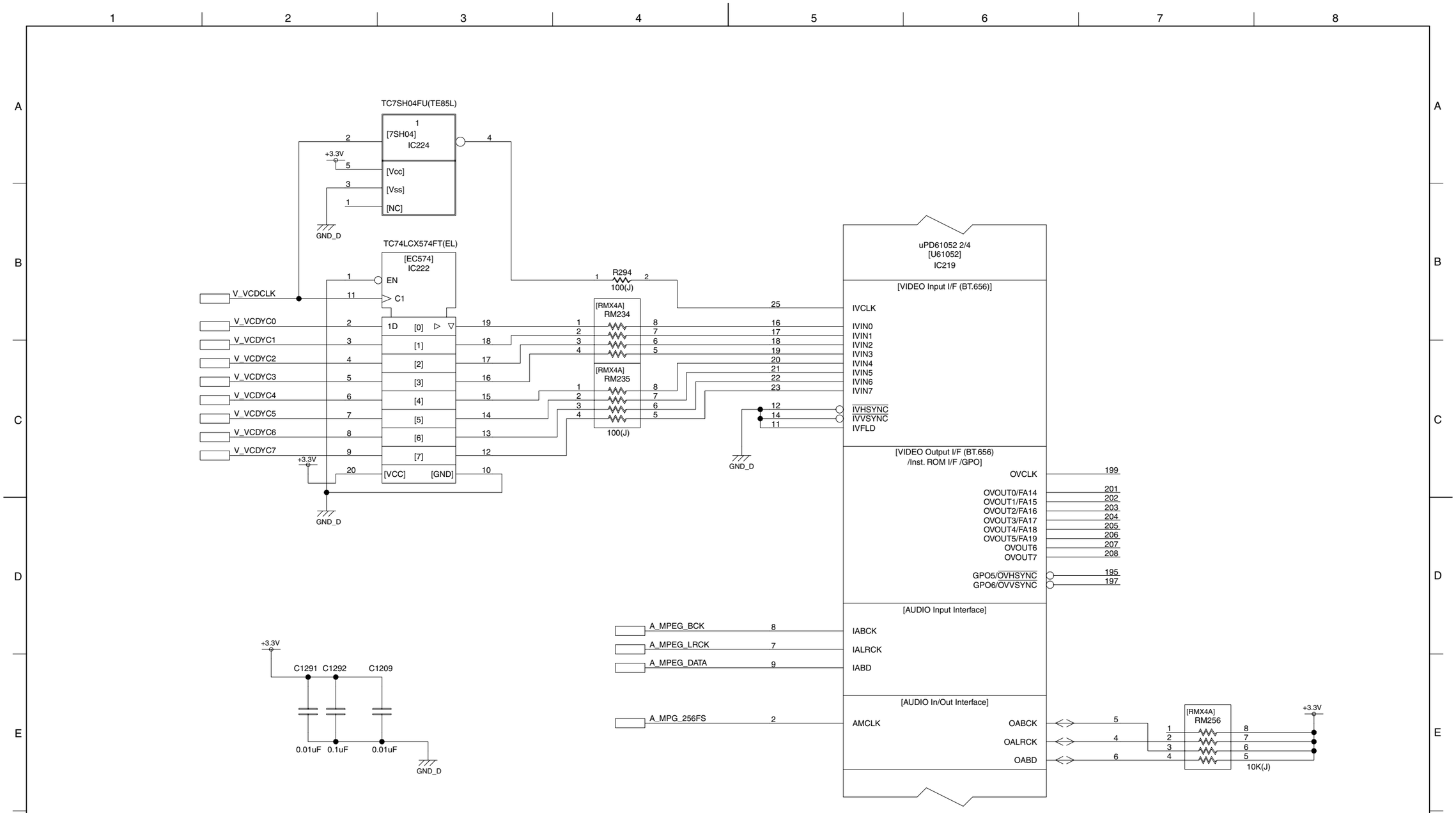


52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-NTSDECORDER2)

SH.NO. 206

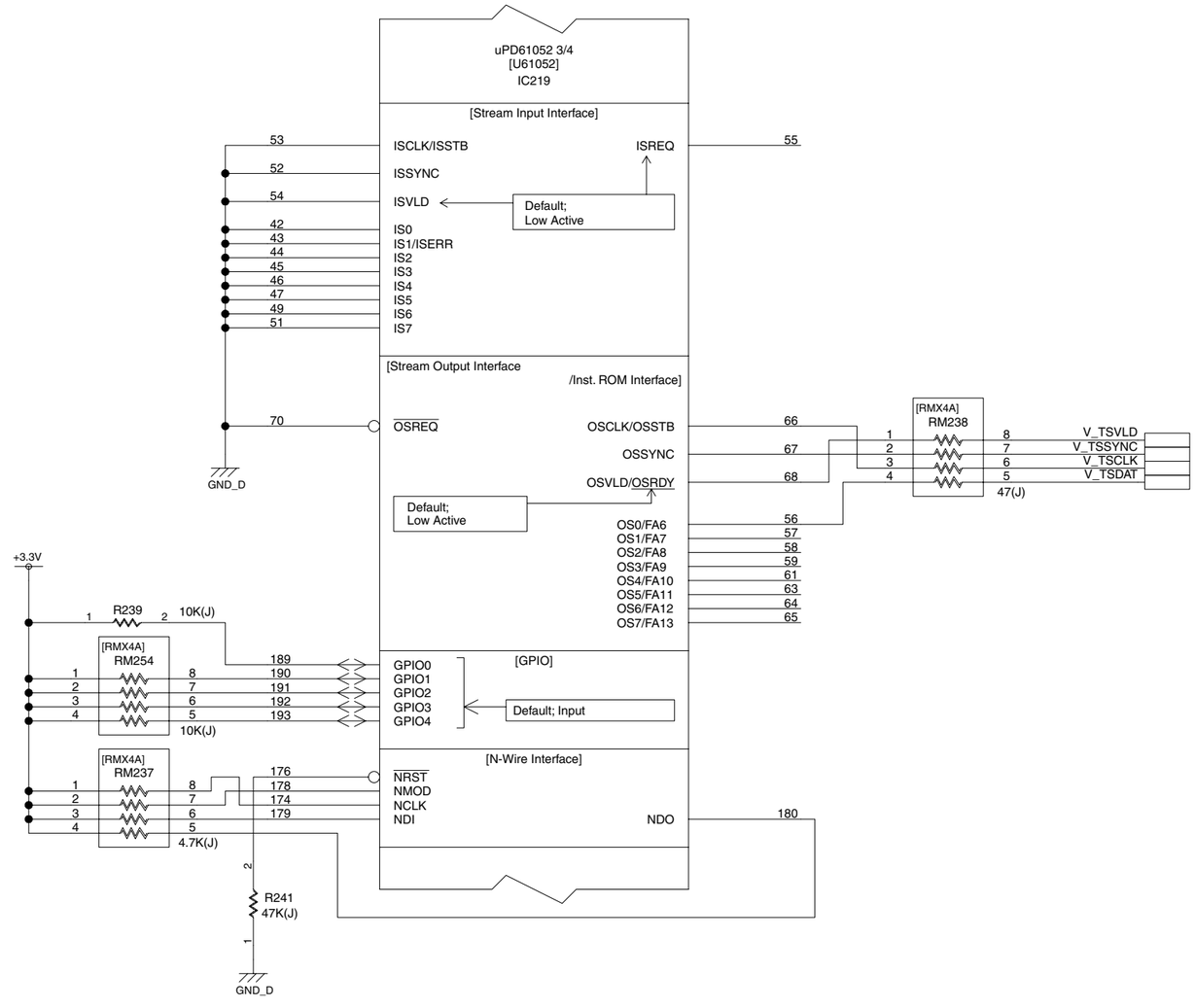


52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-MPEG_ENC1) SH.NO. 208



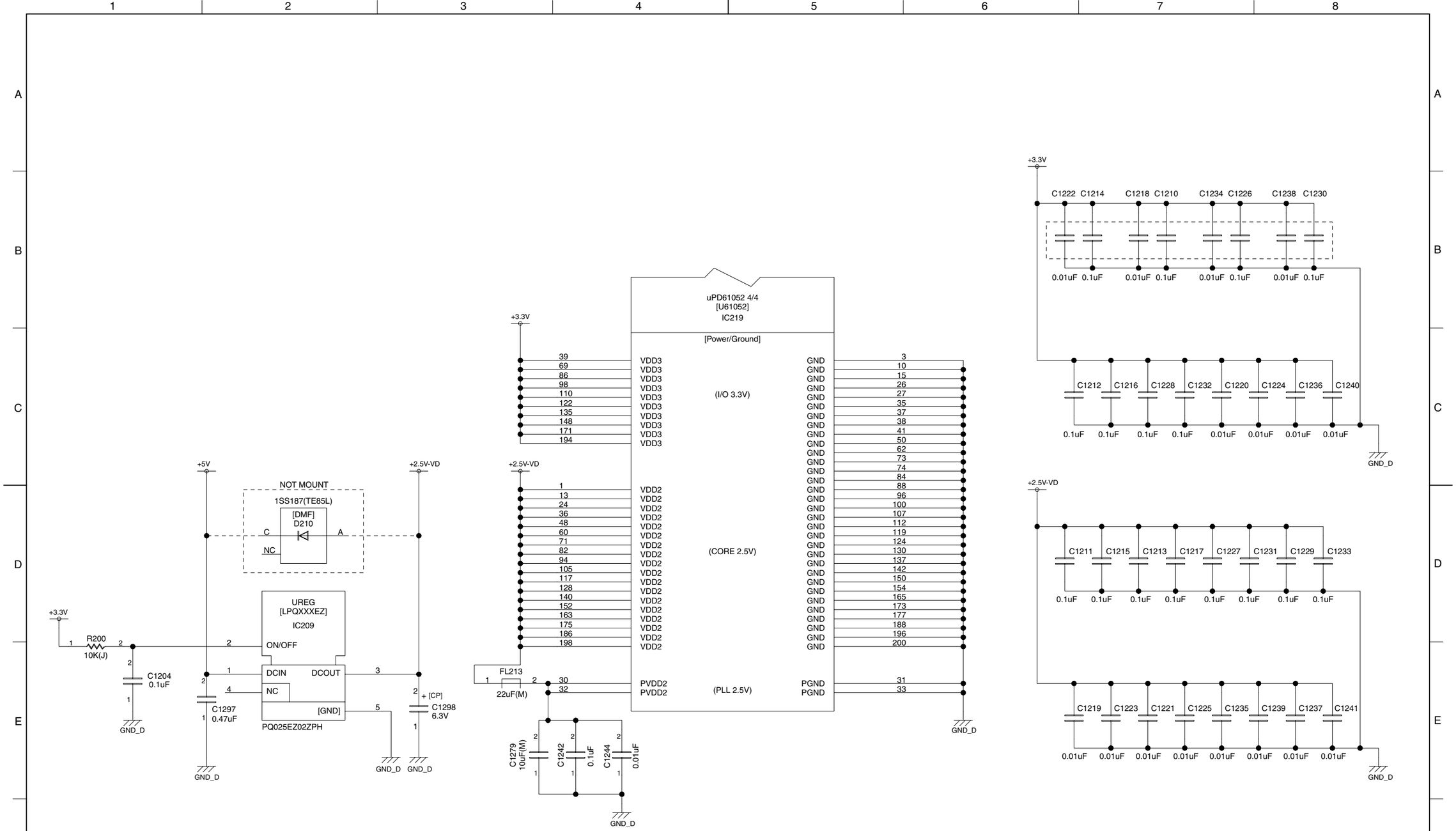
52HMX94/62HMX94 SH.NO.

SEINE_PJTV (VIDEO_IN-MPEG_ENC2) 209



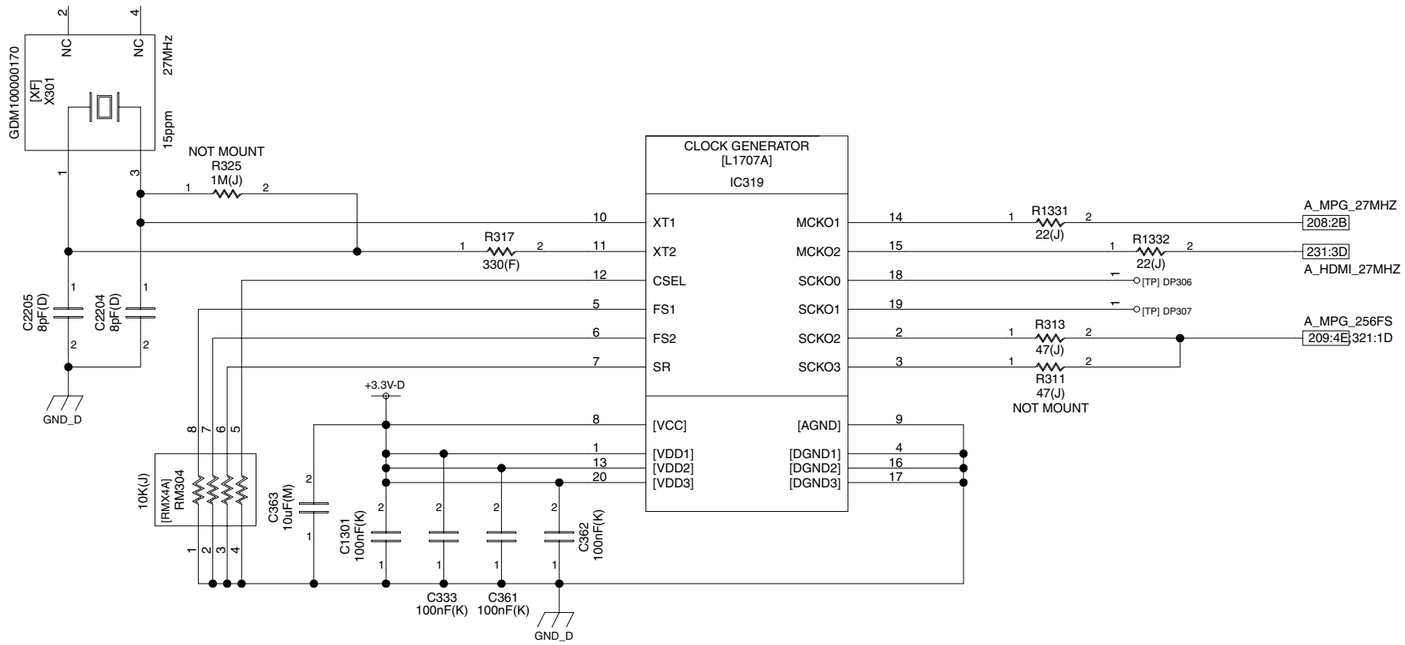
52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-MPEG_ENC3)

SH.NO.
210



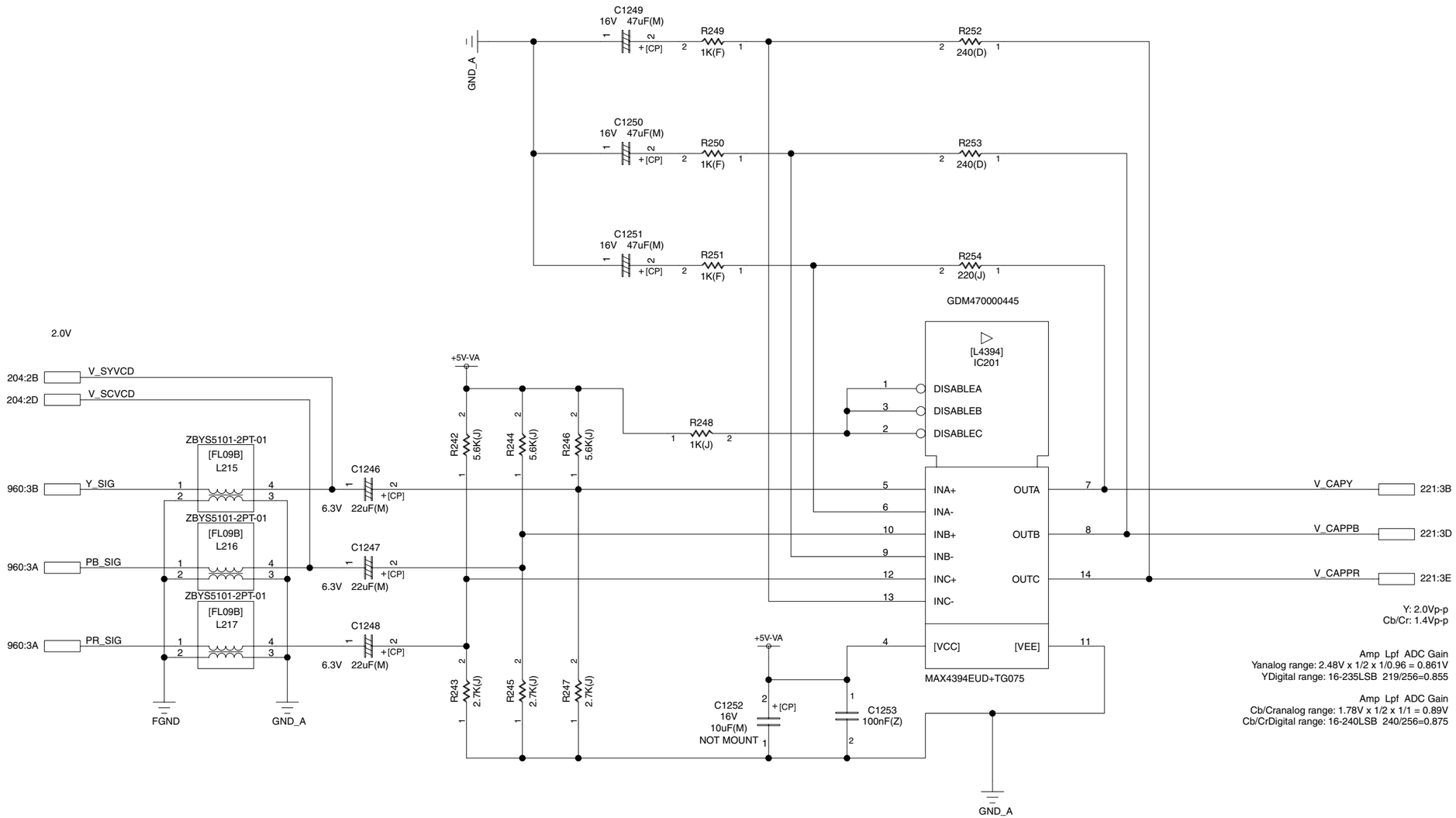
52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-MPEG_ENC4)

SH.NO.
211



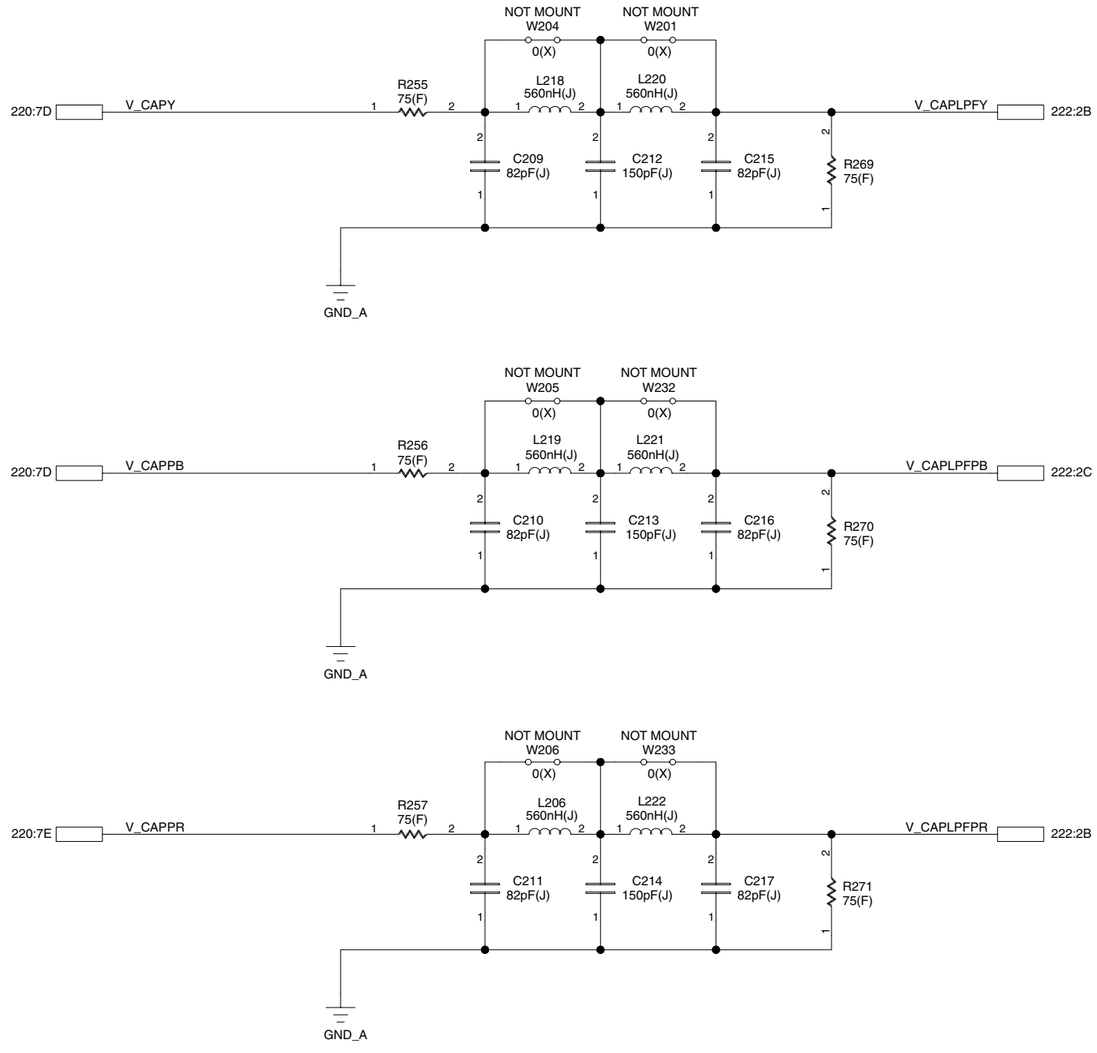
52HMX94/62HMX94
SEINE_PJTV (MPEG_AUDIO_PLL)

SH.NO.
212



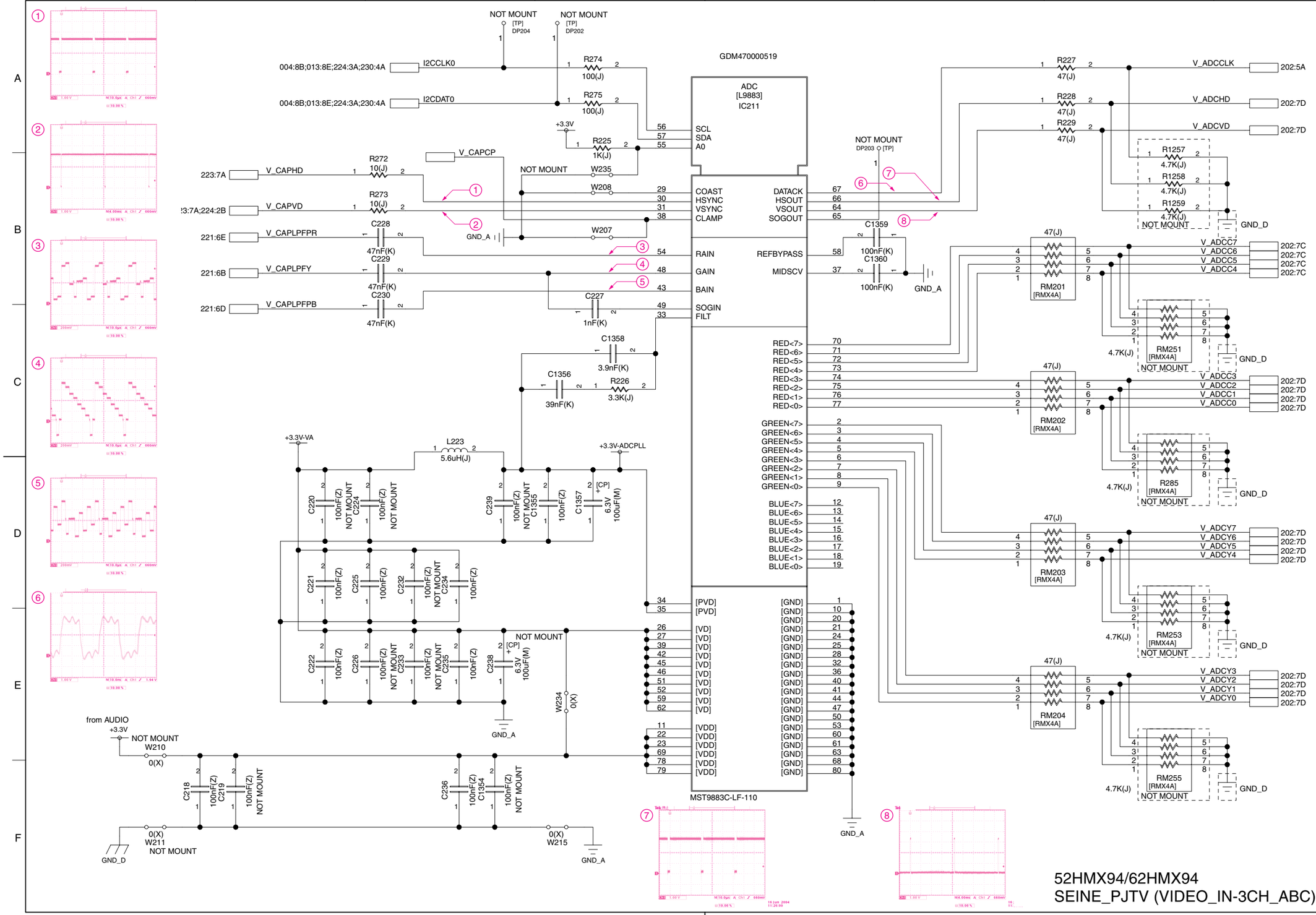
52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-CAPTURE_AMP)

SH.NO.
220



52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-CAPTURE_LPF)

SH.NO.
221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ADC
[L9883]
IC211
MST9883C-LF-110
NOT MOUNT
[TP]
DP204
DP202
DP203
I2CCLK0
I2CDAT0
004:8B;013:8E;224:3A;230:4A
R274
R275
R225
100(J)
1K(J)
+3.3V
SCL
SDA
A0
V_CAPCP
V_CAPHD
V_CAPVD
V_CAPLPFPR
V_CAPLPFFY
V_CAPLPFPB
223:7A
221:6E
221:6B
221:6D
R272
R273
10(J)
C228
C229
C230
47nF(K)
W235
W208
W207
GND_A
COAST
HSYNC
VSYNC
CLAMP
RAIN
GAIN
BAIN
SOGIN
FILT
C227
1nF(K)
C1358
3.9nF(K)
C1356
39nF(K)
R226
3.3K(J)
DATACK
HSOUT
VSOUT
SOGOUT
REFBYPASS
MIDSCV
C1359
C1360
100nF(K)
R227
R228
R229
47(J)
V_ADCCLK
V_ADCHD
V_ADCVD
202:5A
202:7D
R1257
R1258
R1259
4.7K(J)
GND_D
RM201
RM251
RM202
RM203
RM253
RM204
R285
RM255
[RMX4A]
4.7K(J)
V_ADCC7
V_ADCC6
V_ADCC5
V_ADCC4
V_ADCC3
V_ADCC2
V_ADCC1
V_ADCC0
V_ADCY7
V_ADCY6
V_ADCY5
V_ADCY4
V_ADCY3
V_ADCY2
V_ADCY1
V_ADCY0
202:7C
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RED<6>
RED<5>
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RED<2>
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RED<0>
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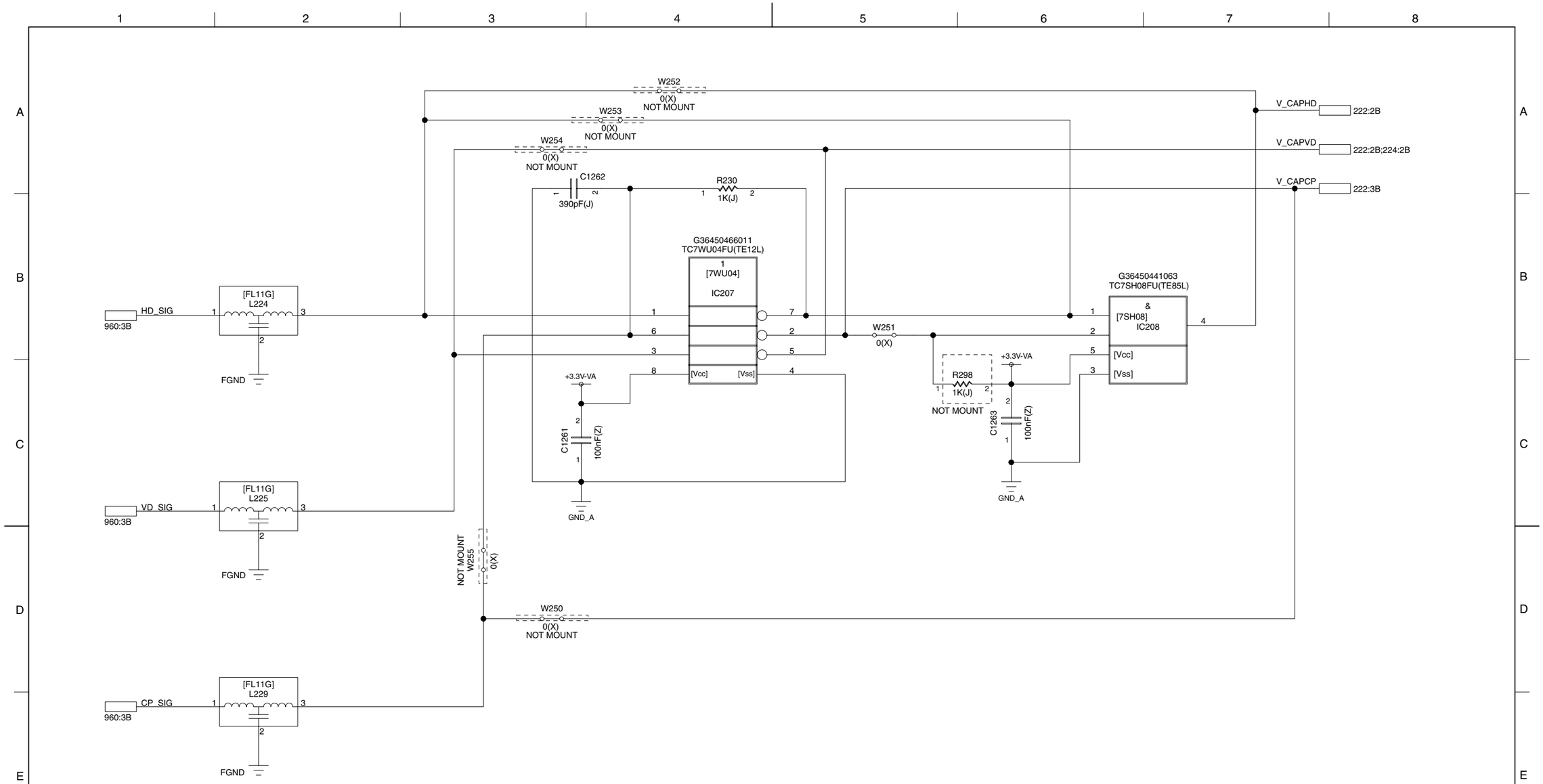
BLUE<2>
BLUE<1>
BLUE<0>
[PVD]
[VD]
[VDD]
[GND]
+3.3V-VA
+3.3V-ADCPLL
L223
5.6uH(J)
C220
C224
C239
C1355
C1357
C221
C225
C232
C234
C222
C226
C233
C235
C238
100nF(Z)
NOT MOUNT
[CP]
6.3V
100uF(M)
W234
0(X)
from AUDIO
W210
C218
C219
C236
C1354
W211
W215
52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-3CH_ABC)
SH.NO.
222

(76/125)



52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-CAPTURE_HD/VD)

SH.NO.
223

GDM450000259

VIDEO DECODER
[U90A92]
IC203

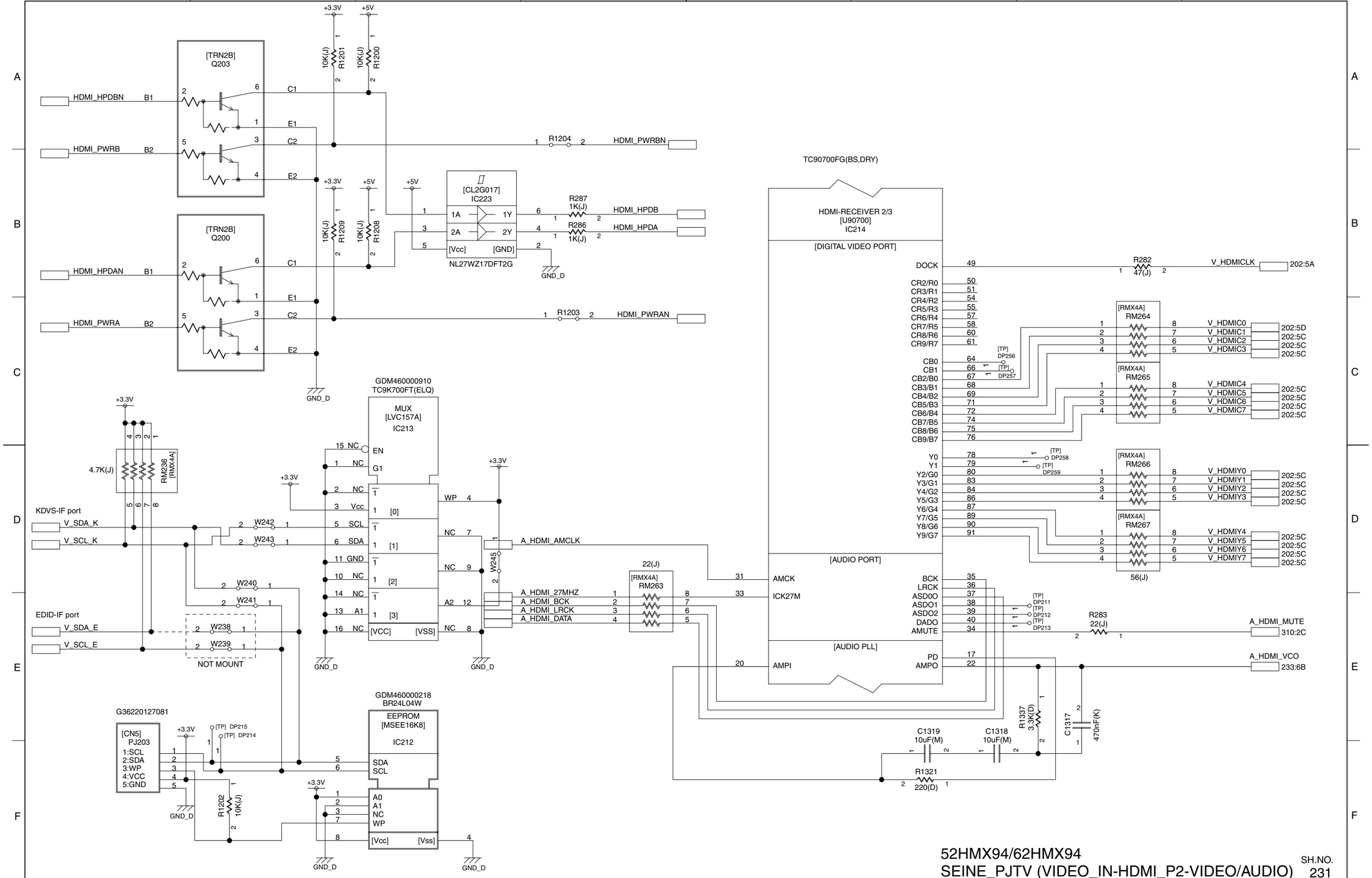
TC90A92AFG(BH,DRY)

52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-3D_Y/C)

SH.NO.
224

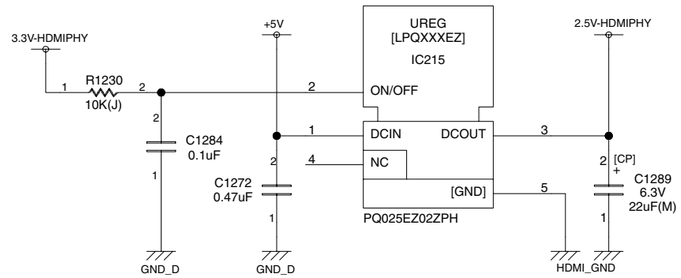
PORT#A
[C19A4]
PJ201
D2+
D2S
D2-
D1+
D1S
D1-
D0+
D0S
D0-
CLK+
CLKS
CLK-
(CEC)
NC
SCL
SDA
GND
PWR
DET
DC1R019JD1E400
HDMI_GND
GND_DDC
GND_D
[FL09B]
FL200
FL201
FL206
[FL09B]
FL207
[FL09B]
FL220
[FL09C]
FL222
[FL09C]
R1213
R1212
V_RXA2N
V_RXA2P
V_RXA1P
V_RXA1N
V_RXA0N
V_RXA0P
V_RXACP
V_RXACN
HDMI_PWRA
HDMI_HPDA
+5V
D211
[DMC]
D213
[DMC]
D212
[DMC]
D214
[DMC]
NOT MOUNT
HMX94 ONLY
PORT#B
[C19A4]
PJ202
W216
NOT MOUNT
FL203
[FL09B]
FL209
FL204
[FL09B]
FL210
FL221
[FL09C]
FL223
[FL09C]
R1215
R1214
47K(J)
V_RXB2P
V_RXB2N
V_RXB1N
V_RXB1P
V_RXB0P
V_RXB0N
V_RXBCN
V_RXBCP
HDMI_PWRB
HDMI_HPDB
FL219
FGND
+3.3V
NOT MOUNT
[RMX4A]
RM241
56(J)
I2CCLK0
I2CDAT0
W237
W236
HDMI_SCL
HDMI_SDA
W259
W260
M_GRESET3
[TP]
DP216
V_SCL_E
V_SDA_E
R1205
47K(J)
R1207
3.3V-HDMIPHY
R232
1K(J)
R276
R234
1K(J)
R277
2.5V-HDMI
C1256
0.1uF
C1264
0.1uF
C1290
0.1uF
R1206
300(F)
TC90700FG(BS,DRY)
HDMI-RECEIVER 1/3
[U90700]
IC214
SCL_H
SDA_H
SMODE
TEST3
TEST2
TEST1
RESET
HINT
R1225
47(J)
M_HDMIINTPLD
To CPLD
R280
NOT MOUNT
M_HDMIINT
To Seine
[EDID IF/Kdvs IF]
SCL_E
SDA_E
SCL_K
SDA_K
V_SCL_K
V_SDA_K
[DDC A/B]
SCL_DDCA
SDA_DDCA
SCL_DDCB
SDA_DDCB
[Link Port A/B]
V_RXACN
V_RXACP
V_RXA0N
V_RXA0P
V_RXA1N
V_RXA1P
V_RXA2N
V_RXA2P
RXACN
RXACP
RXA0N
RXA0P
RXA1N
RXA1P
RXA2N
RXA2P
RRES_PA
V_RXBCN
V_RXBCP
V_RXB0N
V_RXB0P
V_RXB1N
V_RXB1P
V_RXB2N
V_RXB2P
RXBCN
RXBCP
RXB0N
RXB0P
RXB1N
RXB1P
RXB2N
RXB2P
RRES_PB
VREF_PA
R1263
C1700
0.1uF
0.01uF
C1243
VREF_PB
R1264
C1701
0.1uF
0.01uF
R1288
[ANALOGUE VIDEO PORT]
VBS
VREF
IREF
YP
YN
PBP
PBN
PRP
PRN
HBLANK
VBLANK
HSYNC
VSYNC
[RMX4A]
RM242
56(J)
V_HDMIHD
V_HDMIVD
HDMI_VD

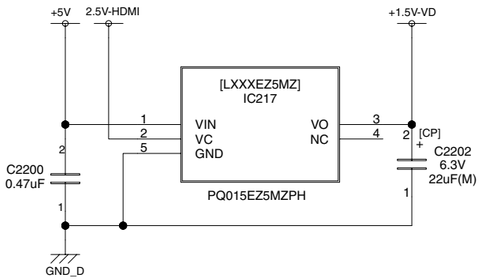
52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-HDMI-LINK/12C)
SH.NO.
230

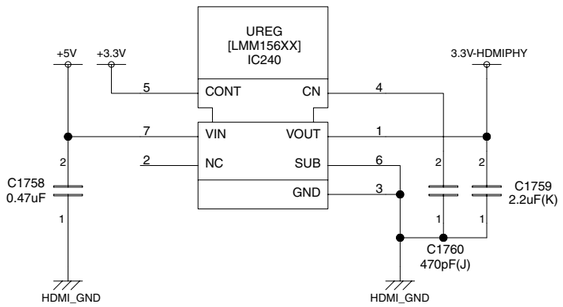


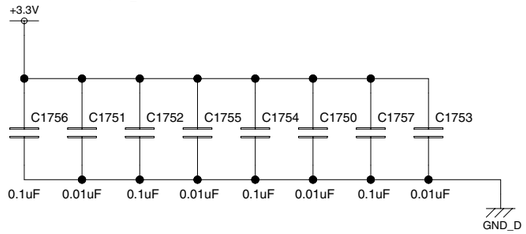
52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-HDMI_P2-VIDEO/AUDIO)

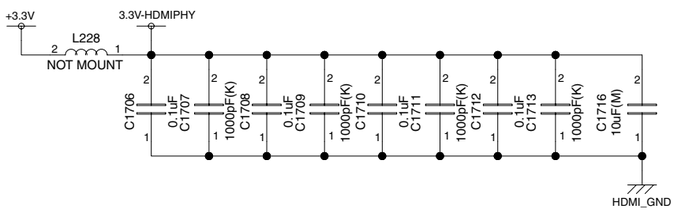
SH.NO. 231

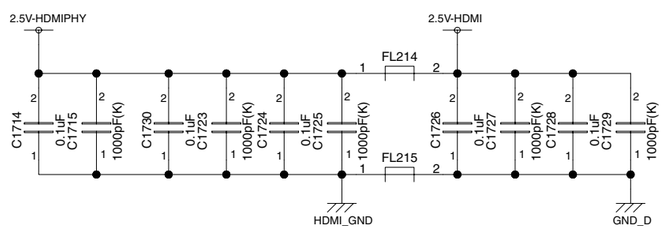


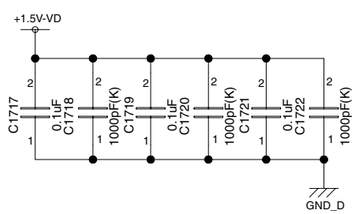


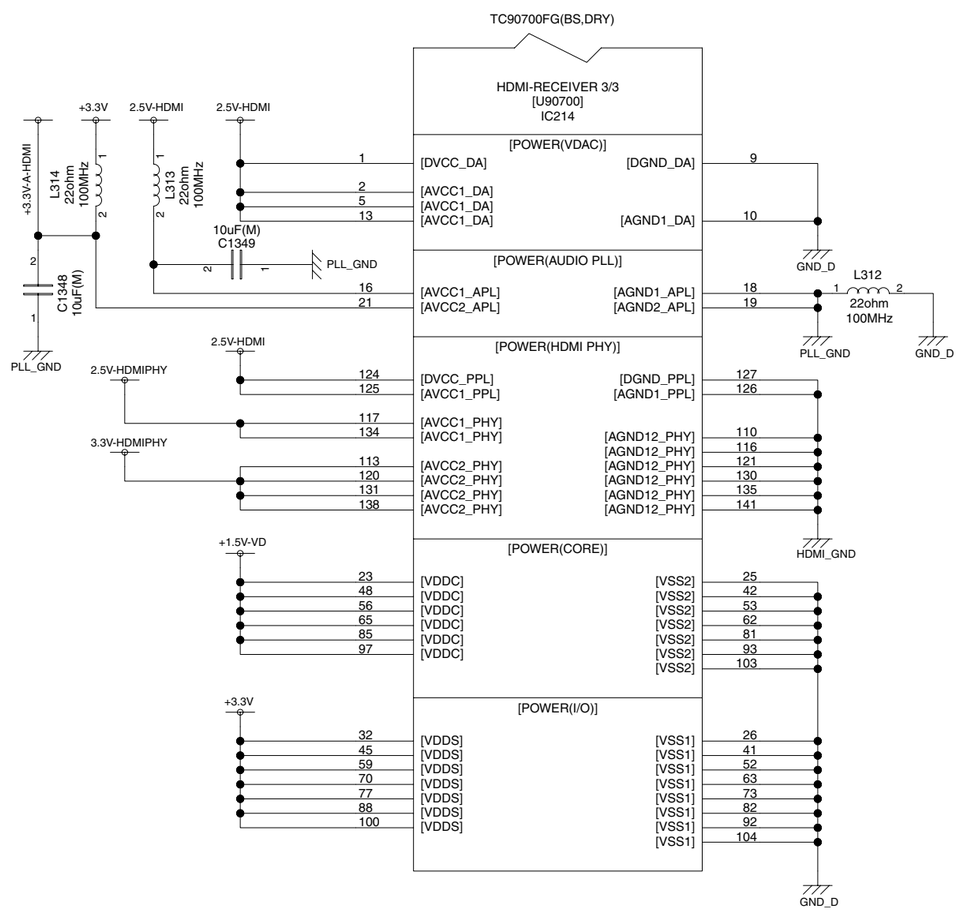






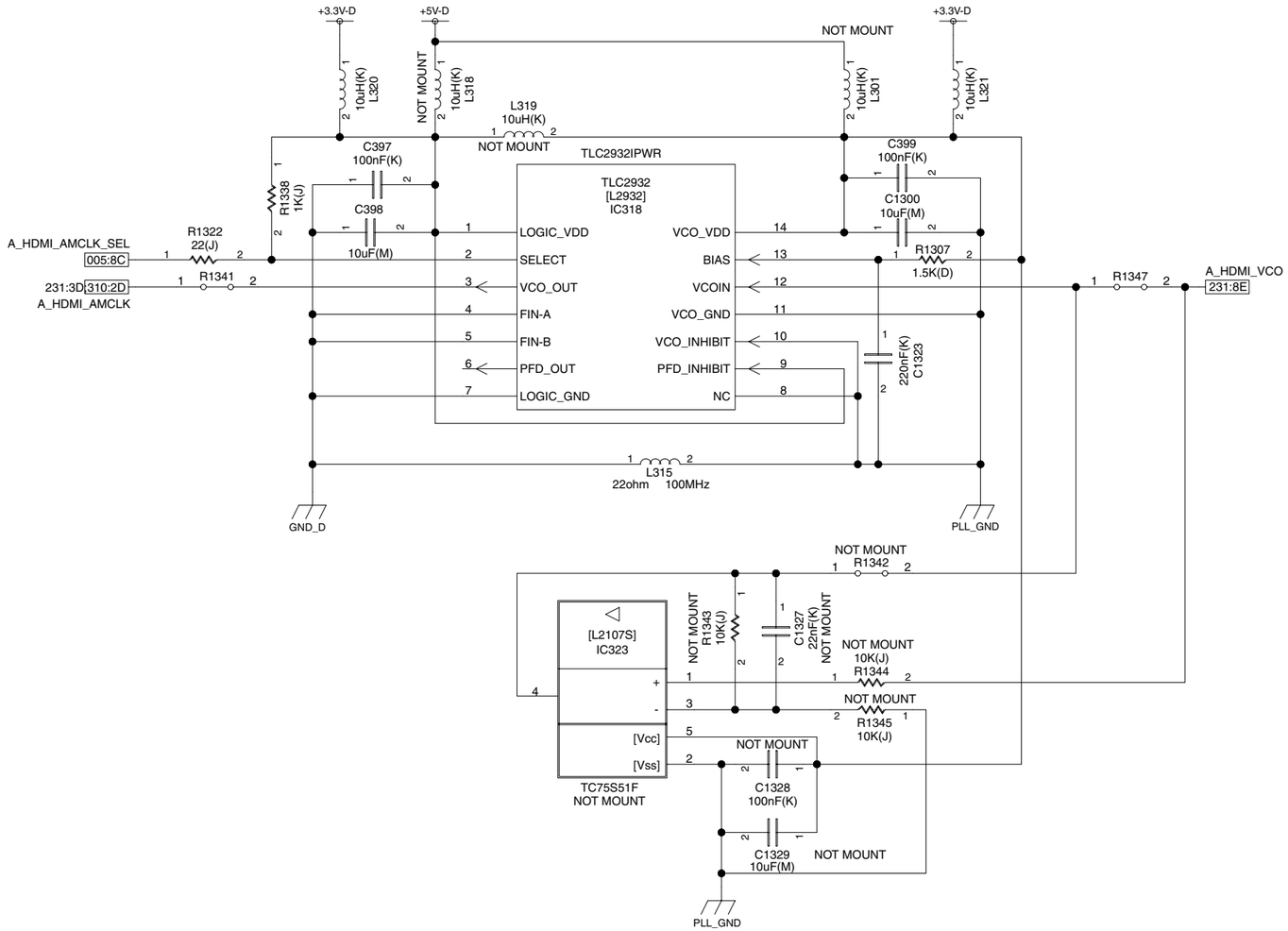






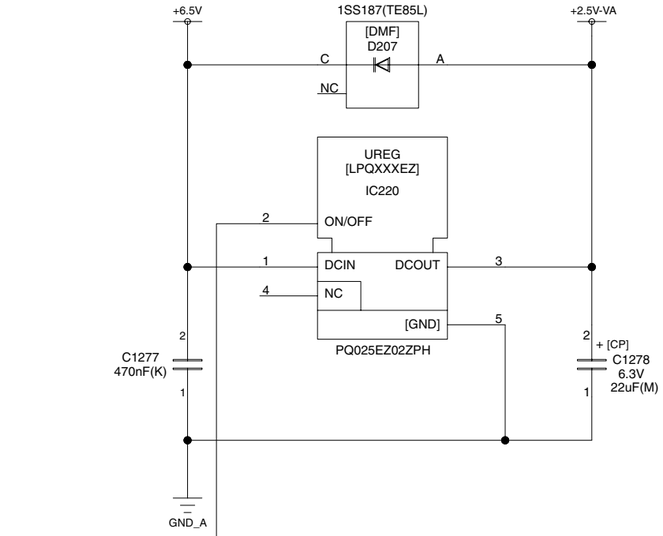
52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-HDMI_P3-PWR/AUDIO)

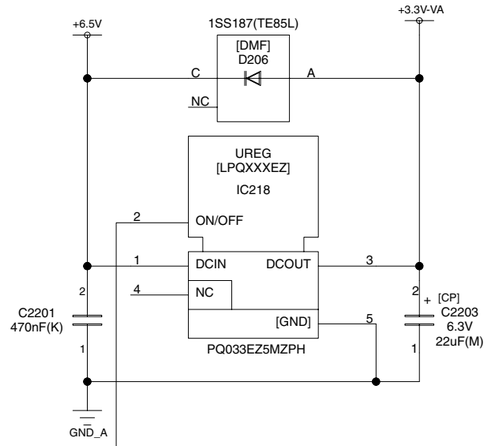
SH.NO.
232



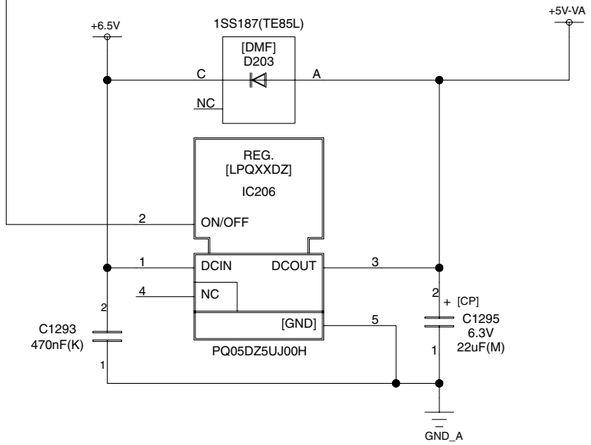
52HMX94/62HMX94
SEINE_PJTV (HDMI_AUDIO_PLL)

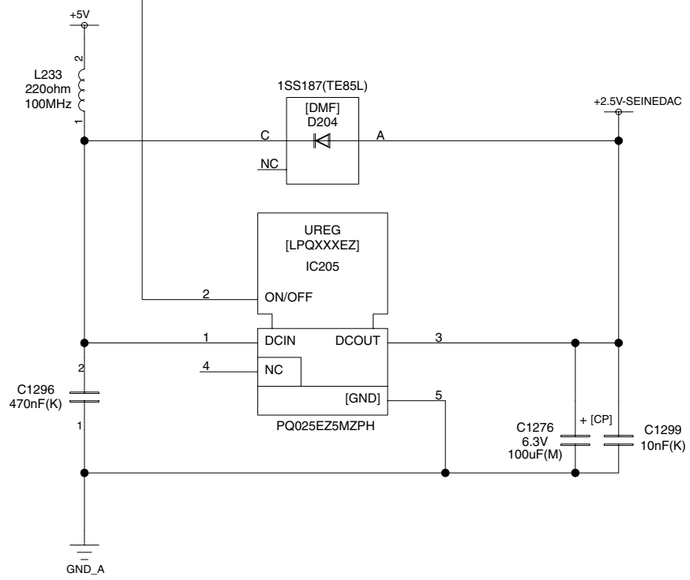
SH.NO. 233





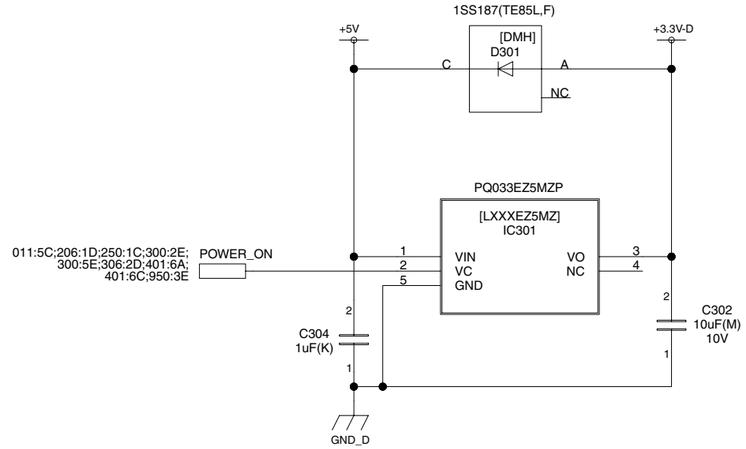
POWER_ON

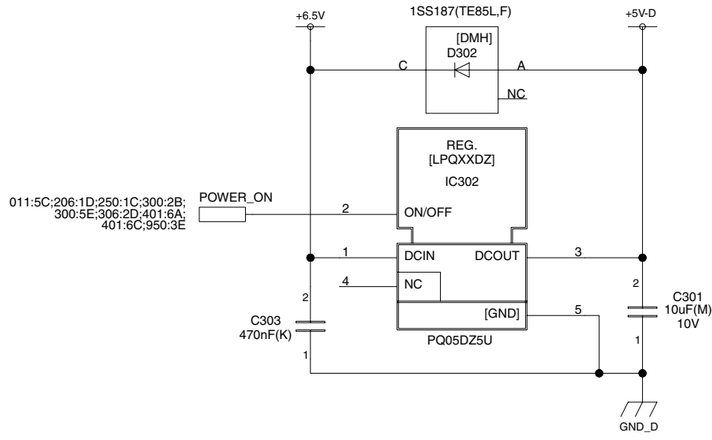


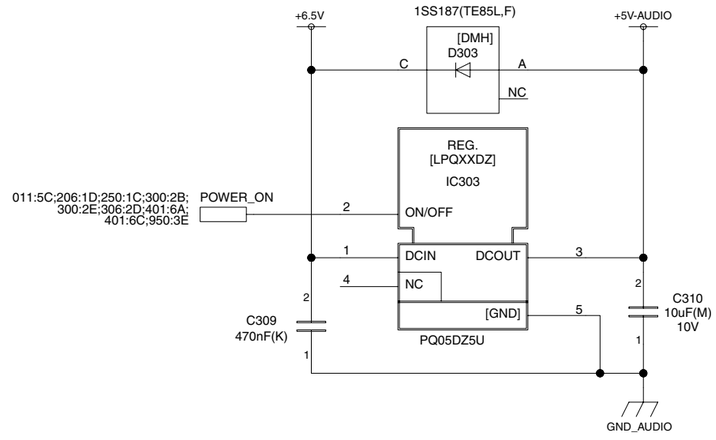


52HMX94/62HMX94
SEINE_PJTV (VIDEO_IN-VIDEO_POWER)

SH.NO.
250

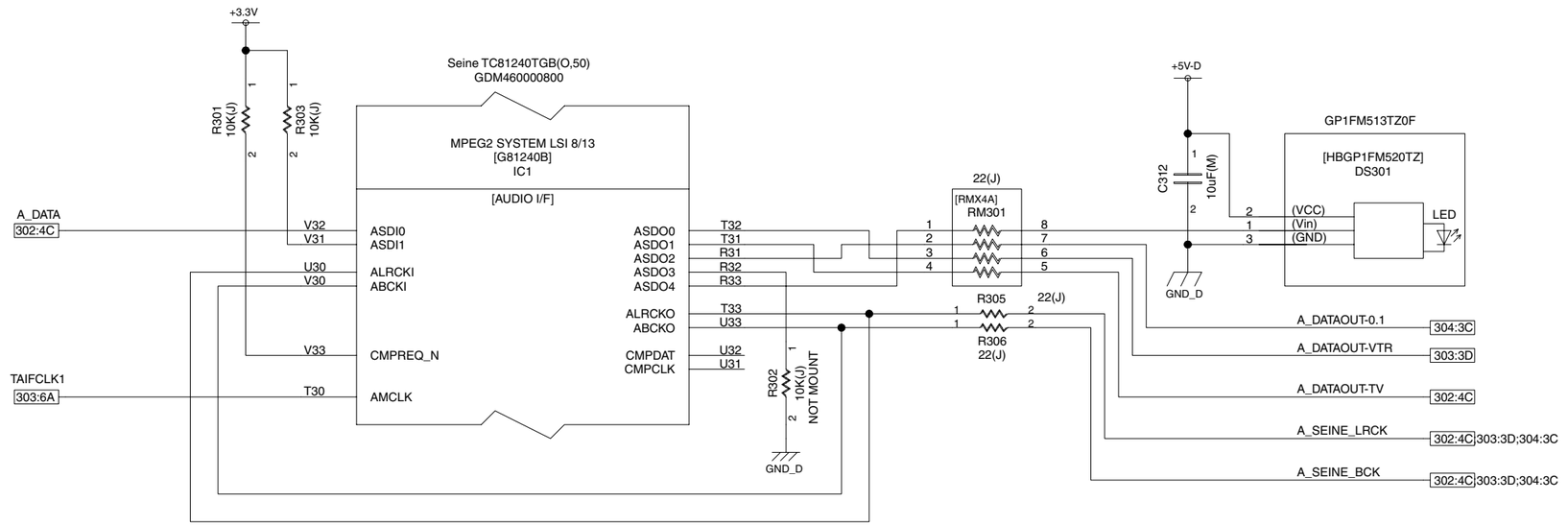






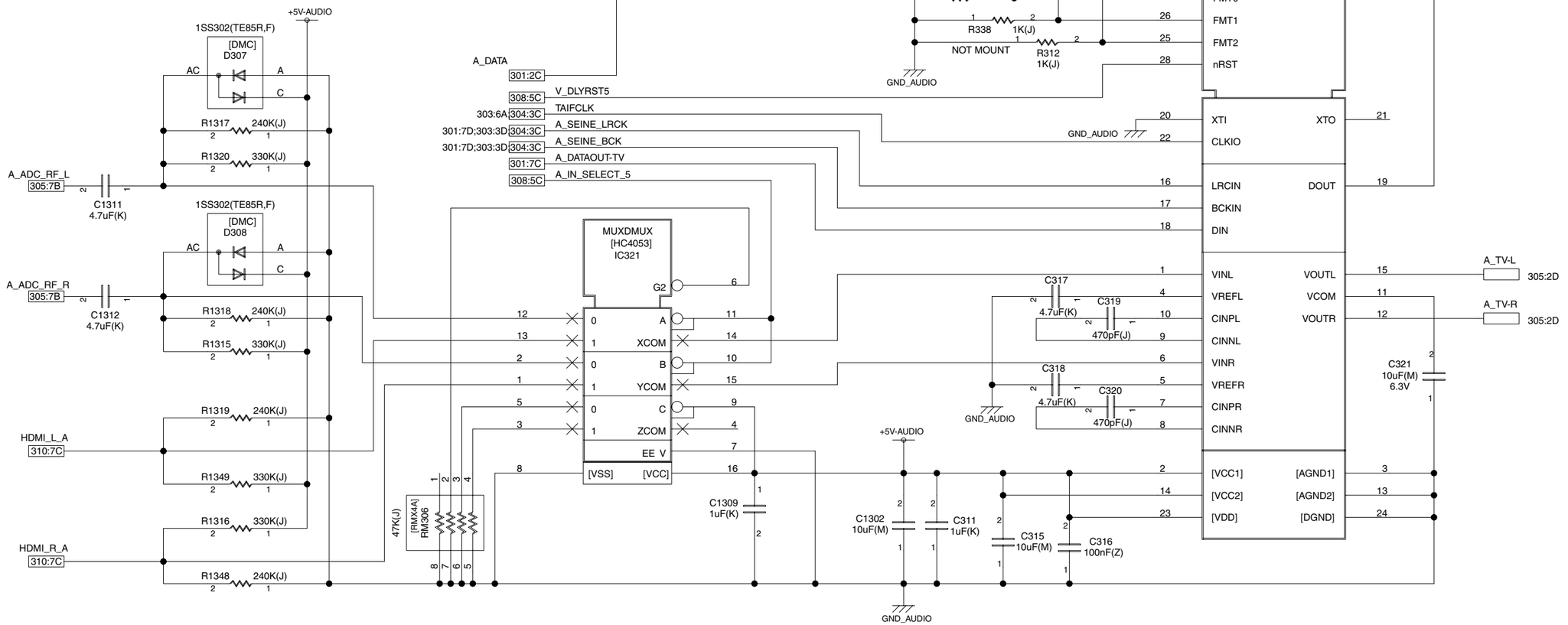
52HMX94/62HMX94
SEINE_PJTV (AUDIO_POWER)

SH.NO.
300



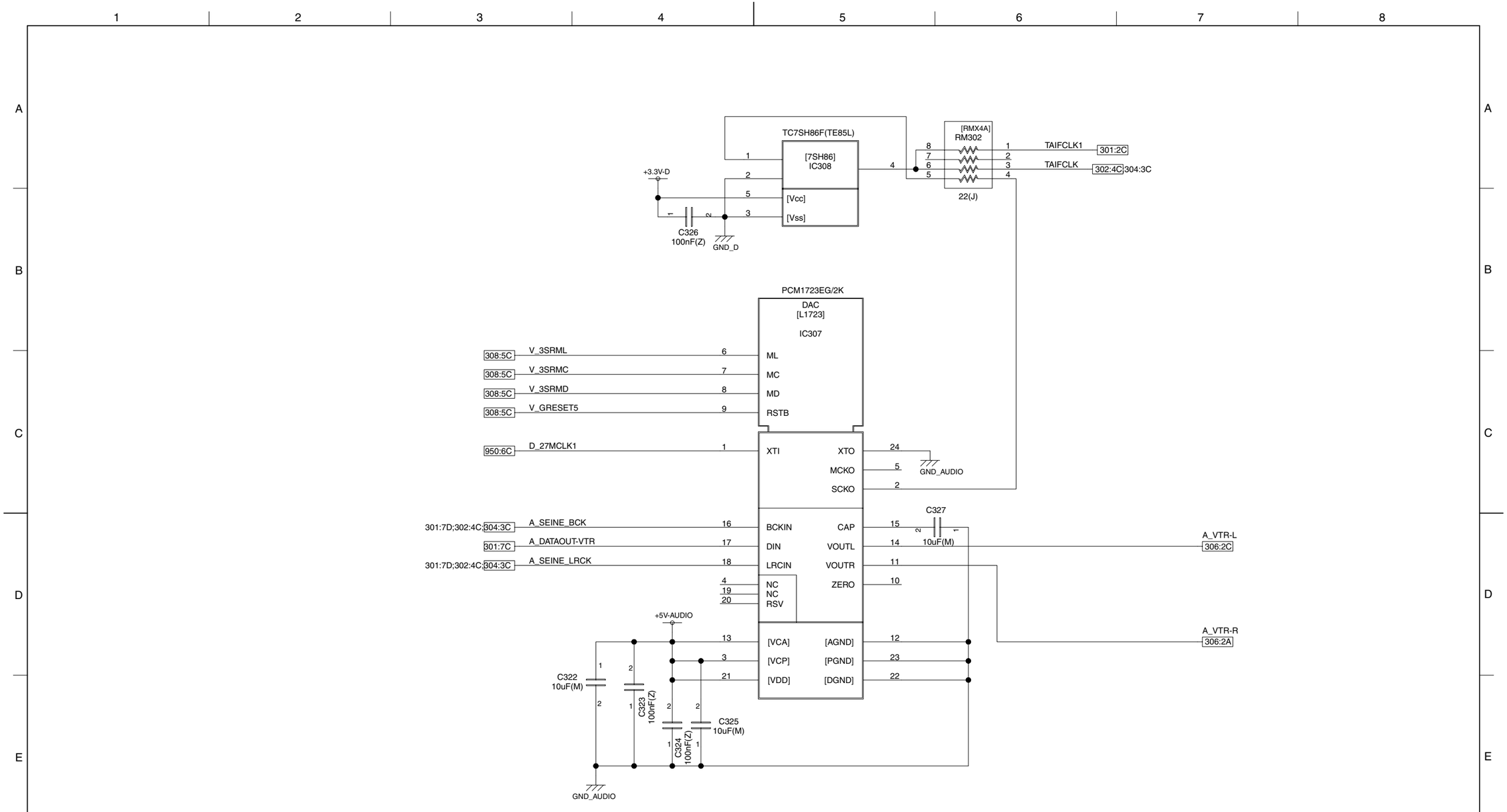
52HMX94/62HMX94
SEINE_PJTV (SEINE_AUDIO_I/F)

SH.NO.
301



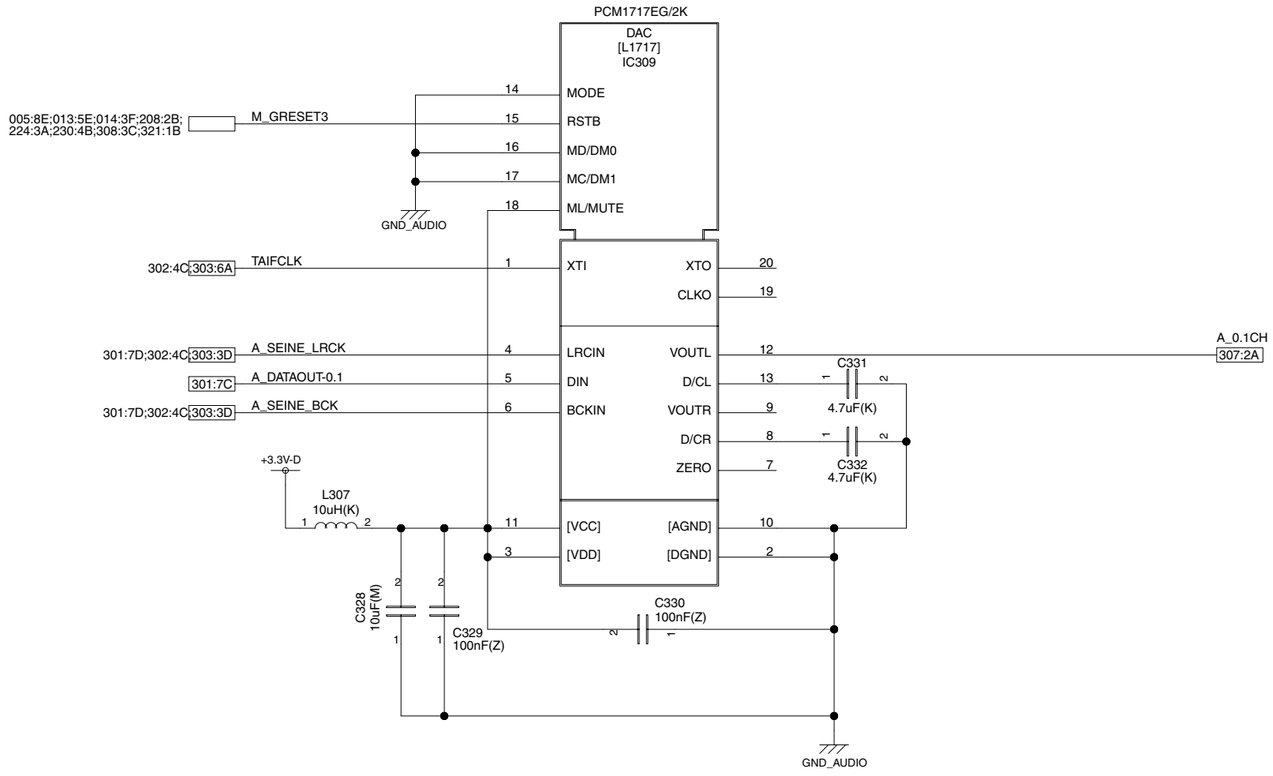
52HMX94/62HMX94
SEINE_PJTV (AUDIO_ADC/DAC)

SH.NO.
302



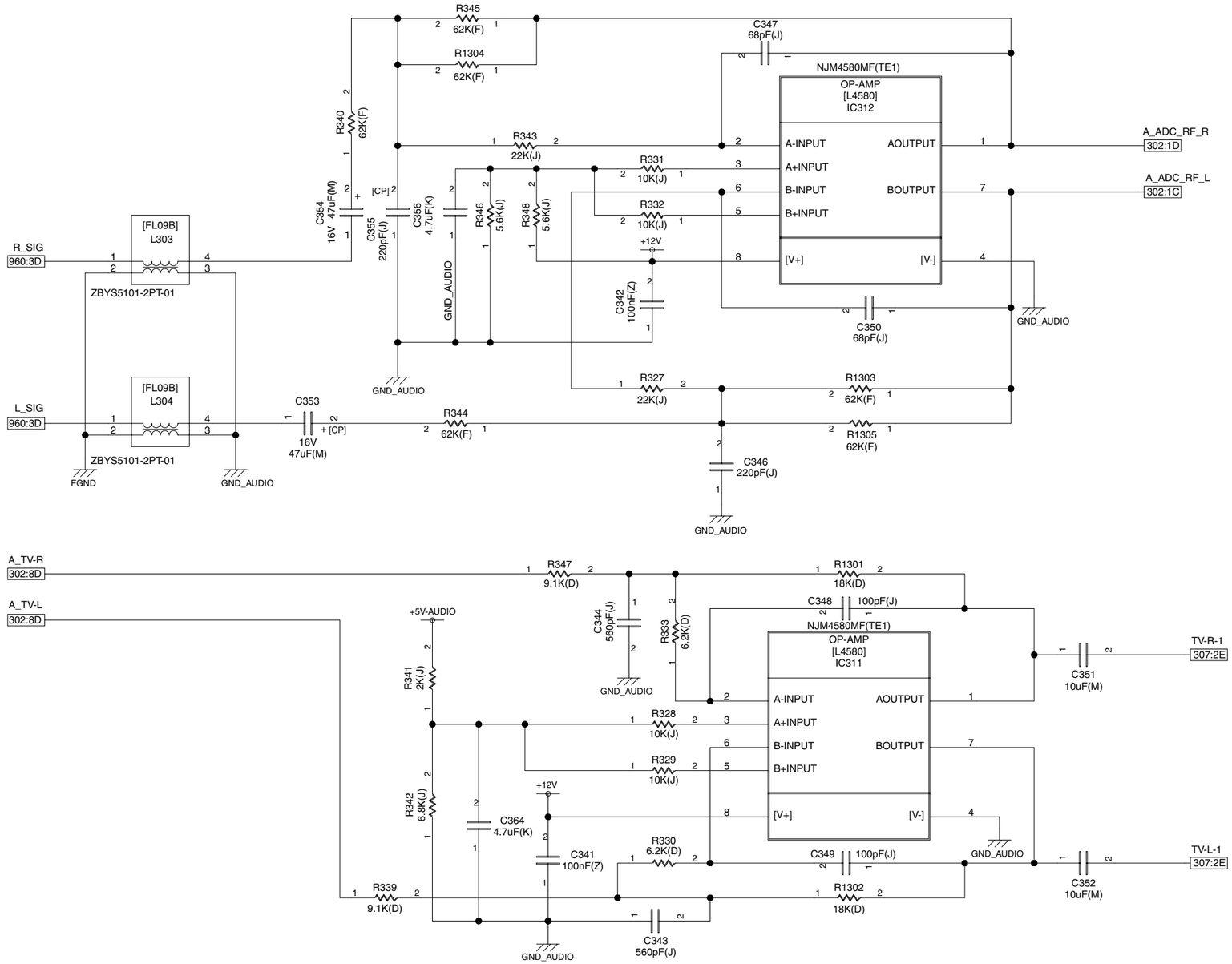
52HMX94/62HMX94
SEINE_PJTV (AUDIO_PLL/DAC)

SH.NO.
303

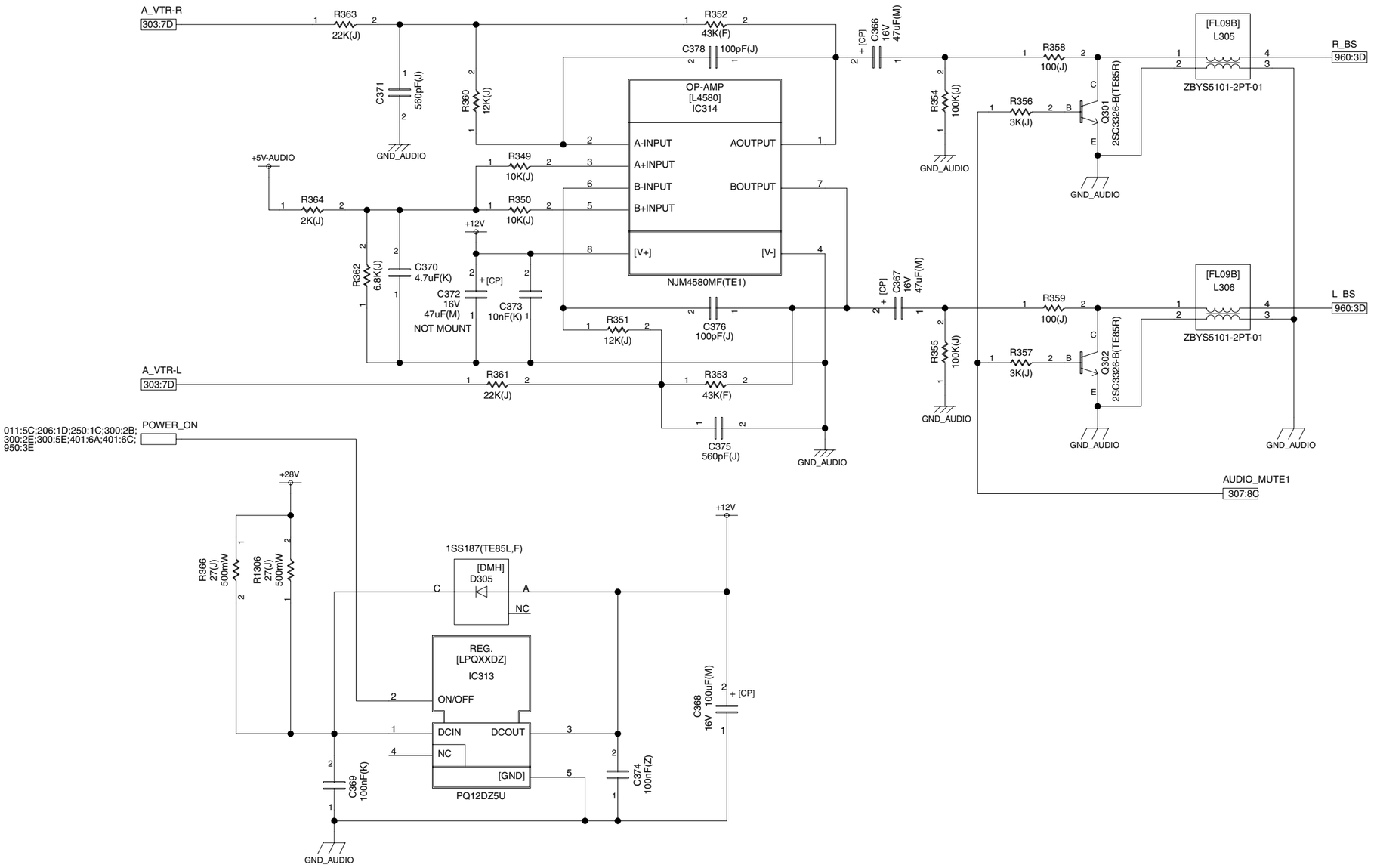


52HMX94/62HMX94
SEINE_PJTV (AUDIO_DAC-01CH_OUT)

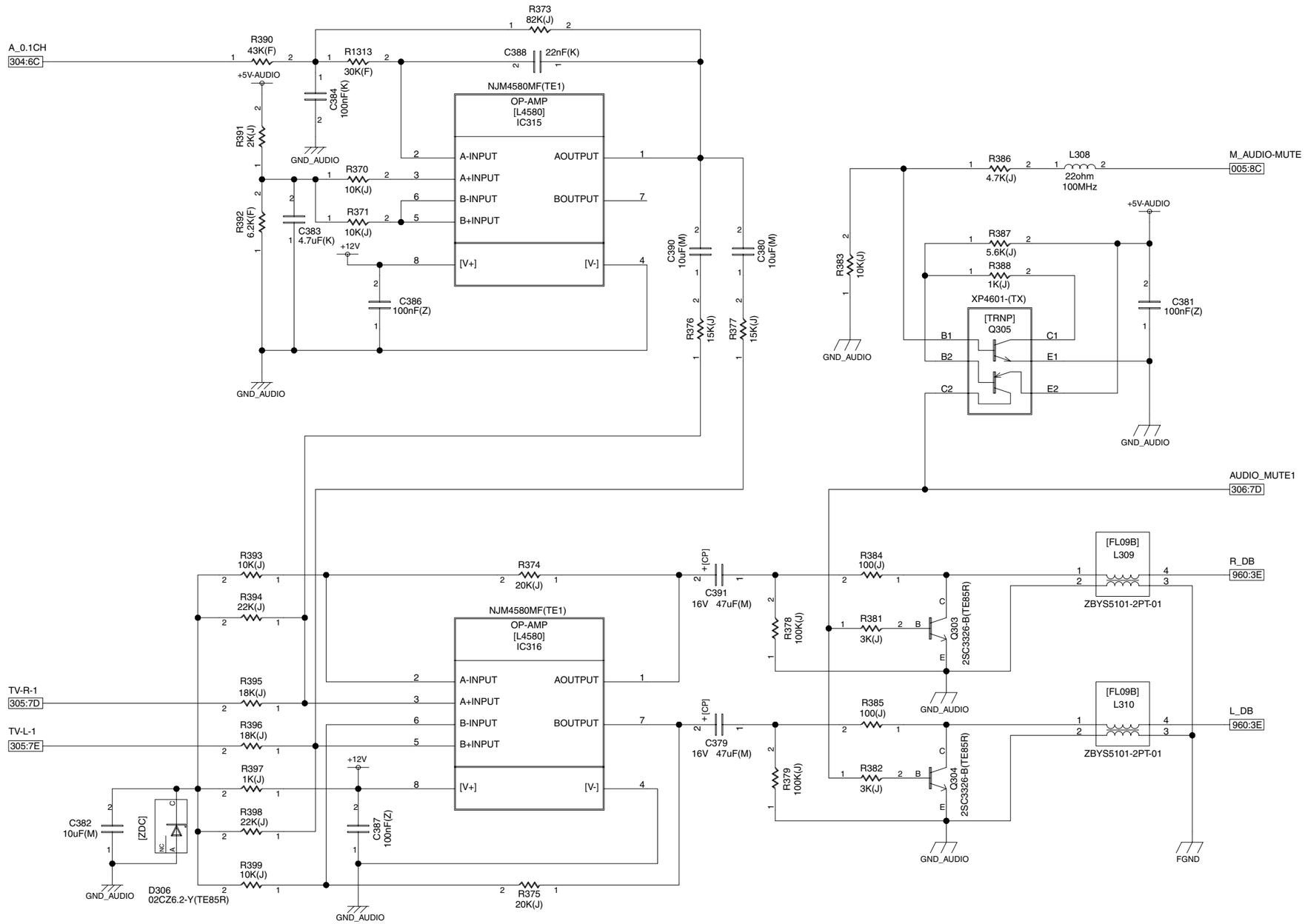
SH.NO.
304



52HMX94/62HMX94 SH.NO.
SEINE_PJTV (AUDIO_TV-IN/OUT) 305

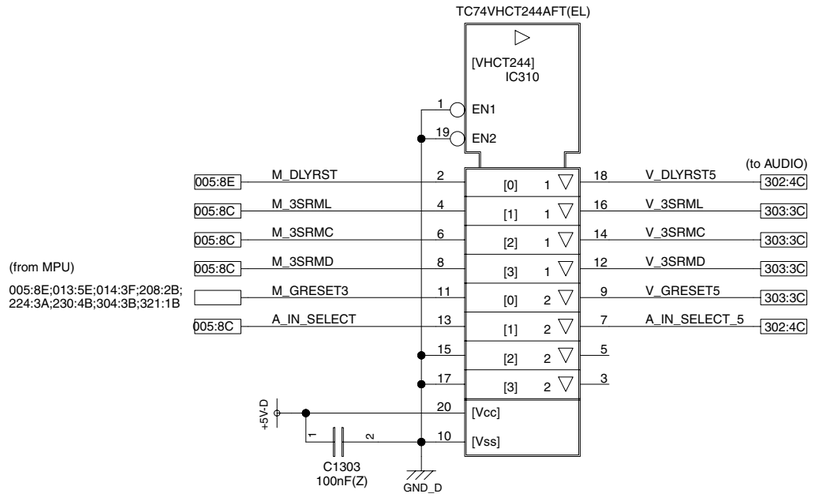


52HMX94/62HMX94 SH.NO.
SEINE_PJTV (AUDIO_VTR_OUT) 306

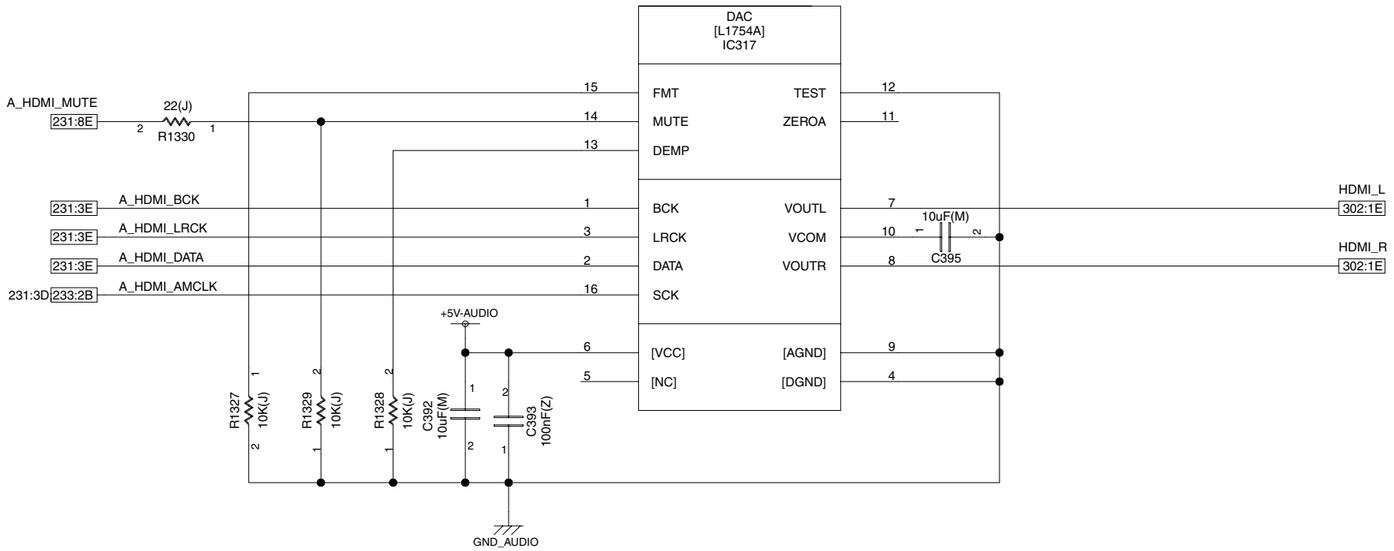


52HMX94/62HMX94
SEINE_PJTV (AUDIO_01CH_OUT_MIX)

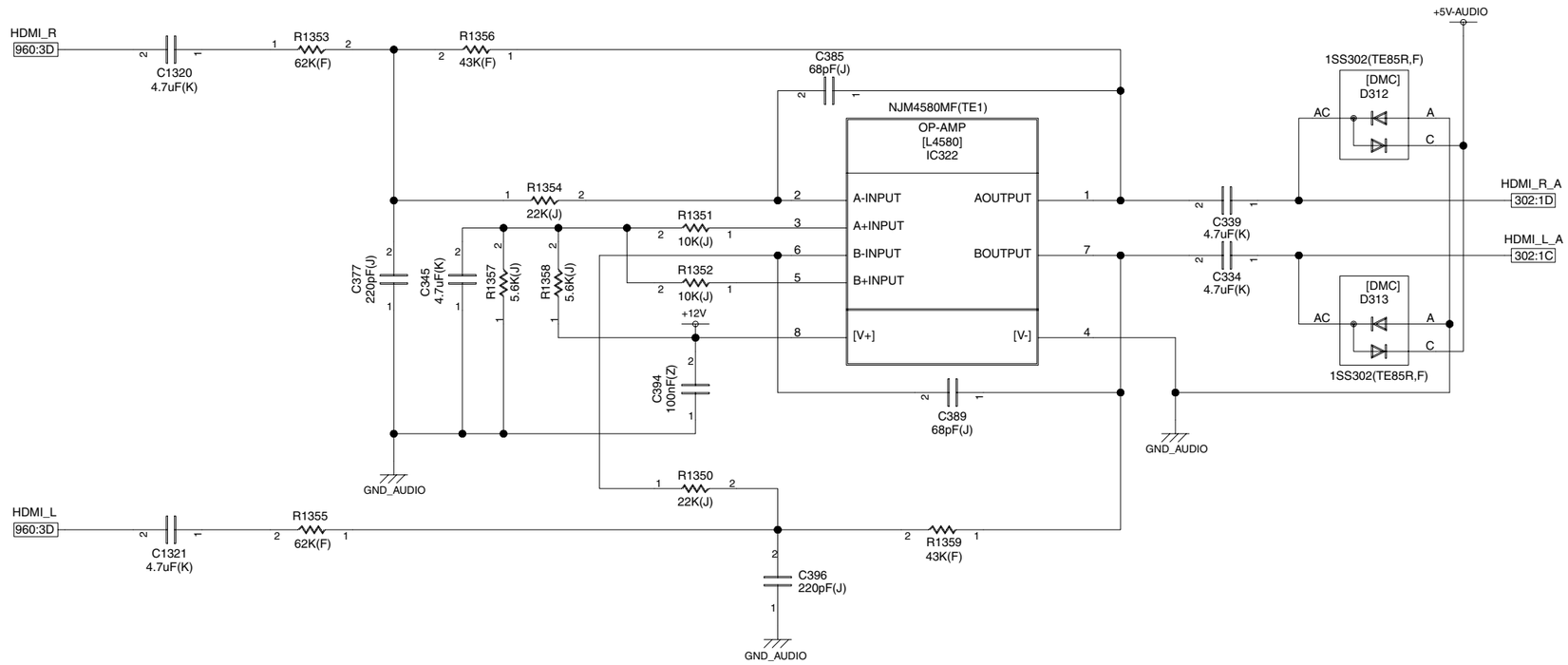
SH.NO. 307



52HMX94/62HMX94 SH.NO.
SEINE_PJTV (AUDIO_CONT) 308

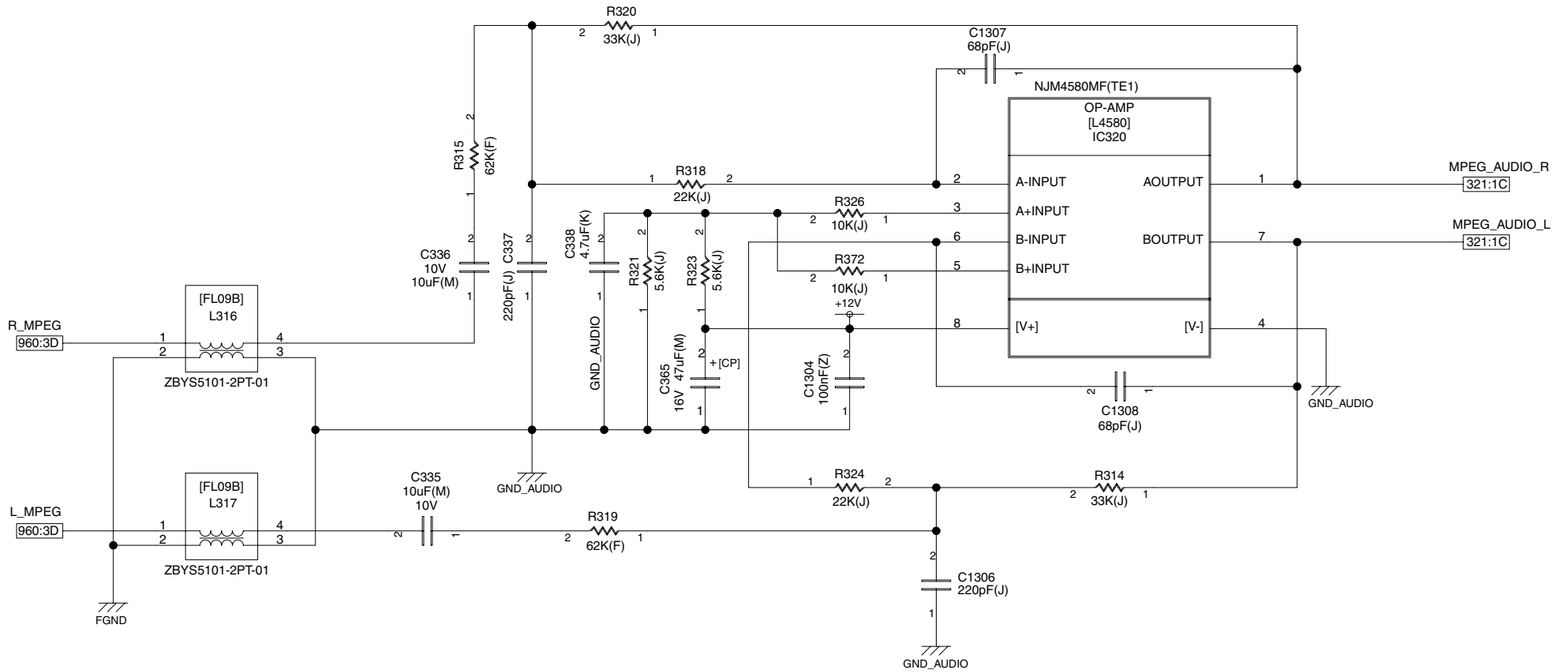


52HMX94/62HMX94 SH.NO.
SEINE_PJTV (HDMI_AUDIO_DAC) 310

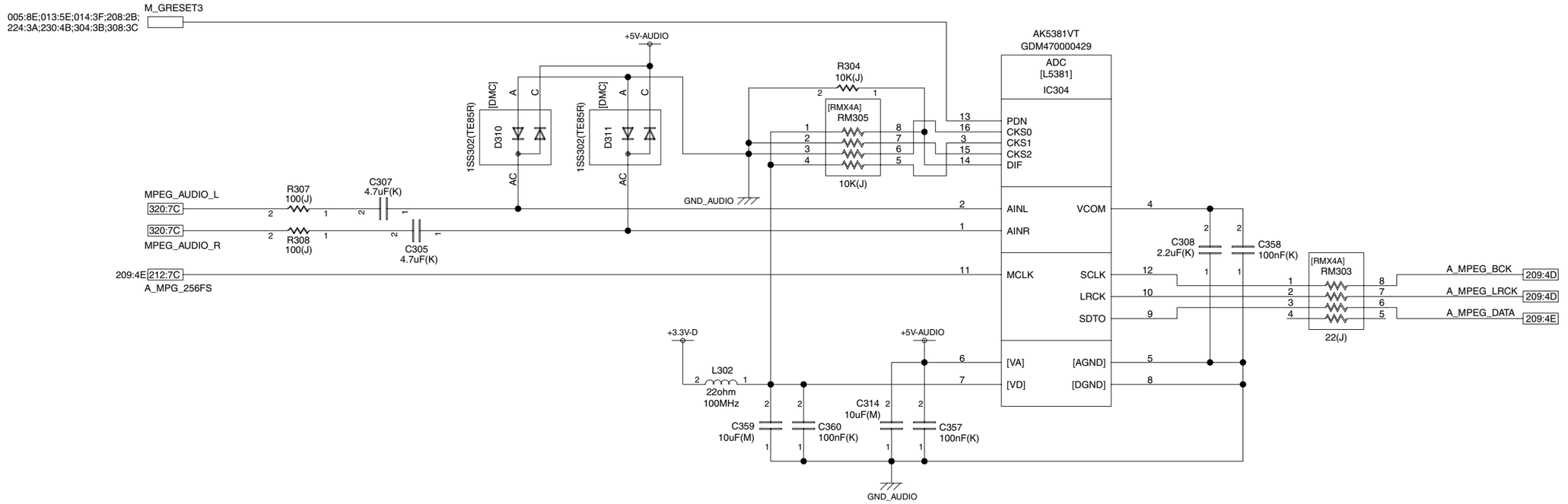


52HMX94/62HMX94
SEINE_PJTV (HDMI_AUDIO_OUT)

SH.NO.
311

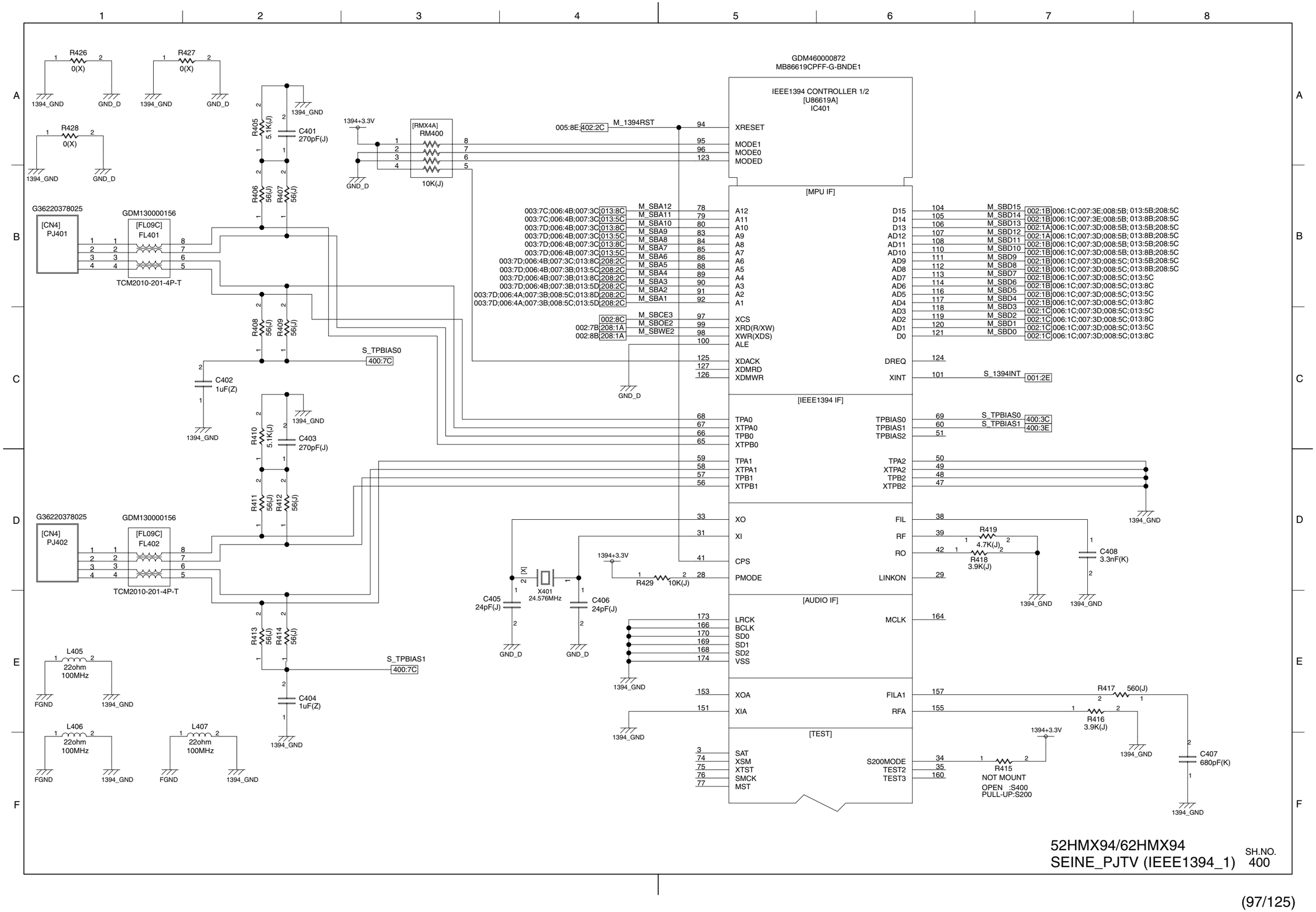


52HMX94/62HMX94 SH.NO.
SEINE_PJTV (MPEG_AUDIO_IN) 320



52HMX94/62HMX94
SEINE_PJTV (MPEG_AUDIO_ADC)

SH.NO. 321



52HMX94/62HMX94
SEINE_PJTV (IEEE1394_1)

SH.NO. 400

GDM460000872
MB86619CPFF-G-BNDE1

IEEE1394 CONTROLLER 2/2
[U86619A]
IC401

[ISOCHRONOUS IF]

402:4C;402:7C S_TSVLD 12 TSVALIDA
402:4C;402:7C S_TSSYNC 10 TSSYNCA
402:4C;402:7C S_TSCLK 8 TSCLKA
402:2C;402:7C S_TSCGMS 26 DSSCLKA

402:4D;402:7D S_TSDAT7 13 TSDA7
402:4D;402:7D S_TSDAT6 14 TSDA6
402:4D;402:7D S_TSDAT5 15 TSDA5
402:4D;402:7D S_TSDAT4 16 TSDA4
402:4C;402:7D S_TSDAT3 18 TSDA3
402:4C;402:7D S_TSDAT2 19 TSDA2
402:4C;402:7E S_TSDAT1 20 TSDA1
402:4C;402:7E S_TSDAT0 21 TSDA0
TSCGMSA 11

110:2D S_TS1VLD R421 100(J) R420 100(J) 133 TSVALIB/DMD12
110:2D S_TS1SYNC 131 TSSYNCB/DMD14
110:2D S_TS1CLK R422 100(J) 129 TSCLKB/DMD15
149 DSSCLKB/DMD0

100(J)
[RMX4A] RM401
110:2C S_TS1DATA7 1 8 135 TSDB7/DMD11
110:2C S_TS1DATA6 2 7 136 TSDB6/DMD10
110:2C S_TS1DATA5 3 6 137 TSDB5/DMD9
110:2C S_TS1DATA4 4 5 138 TSDB4/DMD8
[RMX4A] RM402
110:2C S_TS1DATA3 1 8 140 TSDB3/DMD7
110:2C S_TS1DATA2 2 7 141 TSDB2/DMD6
110:2C S_TS1DATA1 3 6 142 TSDB1/DMD5
110:2C S_TS1DATA0 4 5 143 TSDB0/DMD4
100(J) 132 TSCGMSB/DMD13

1394+3.3V
1 ICLK
4 XIV

SELIOB/DMD2 146
SELTSPB/DMD1 147
IERRB/DMD3 145
R423 100(J) S_TS1ERR 110:2D

SELIOA 23
SELTSPA 24
IERRA 22

XILWRE 5
XFP 6

S1394+3.3V GND_D

[VDD/VSS]

L408 220ohm 100MHz
46 [AVD31]
52 [AVD32]
55 [AVD33]
61 [AVD34]
64 [AVD35]
70 [AVD36]
43 [AVD37]

S1394+2.5V
L409 220ohm 100MHz
37 [AVD22]
40 [AVD23]
156 [AVD24]
158 [AVD25]

1394+3.3V
2 [VDDE]
17 [VDDE]
32 [VDDE]
81 [VDDE]
109 [VDDE]
128 [VDDE]
139 [VDDE]
152 [VDDE]
171 [VDDE]

1394+2.5V
7 [VDDI]
27 [VDDI]
73 [VDDI]
87 [VDDI]
102 [VDDI]
122 [VDDI]
134 [VDDI]
148 [VDDI]
162 [VDDI]
165 [VDDI]
175 [VDDI]

[AVS31] 45
[AVS32] 53
[AVS33] 54
[AVS34] 62
[AVS35] 63
[AVS36] 71
[AVS37] 44

[AVS22] 36
[AVS24] 154
[AVS25] 159

1394_GND

R446 0(X) NOT MOUNT
W401 NOT MOUNT
W402 NOT MOUNT
W403 NOT MOUNT

[VSS] 9
[VSS] 25
[VSS] 30
[VSS] 72
[VSS] 82
[VSS] 93
[VSS] 103
[VSS] 115
[VSS] 130
[VSS] 144
[VSS] 150
[VSS] 161
[VSS] 163
[VSS] 167
[VSS] 172
[VSS] 176

GND_D

011:5C;206:1D;250:1C;300:2B;300:2E;300:5E;306:2D;401:6C;950:3E POWER_ON R424 100(J)
+5V
UREG [LPQXXXEZ] IC402
ON/OFF
DCIN DCOUT
NC
[GND]
PQ025EZ5MZPH
1SS187(TE85L)
[DMF] D401
C435 6V 47uF(M)
1394+2.5V
C434 100nF(Z)
GND_D

011:5C;206:1D;250:1C;300:2B;300:2E;300:5E;306:2D;401:6A;950:3E POWER_ON R425 100(J)
+5V
UREG [LPQXXXEZ] IC403
ON/OFF
DCIN DCOUT
NC
[GND]
PQ033EZ01ZPH
1SS187(TE85L)
[DMF] D402
C436 6V 47uF(M)
1394+3.3V
C437 100nF(Z)
GND_D

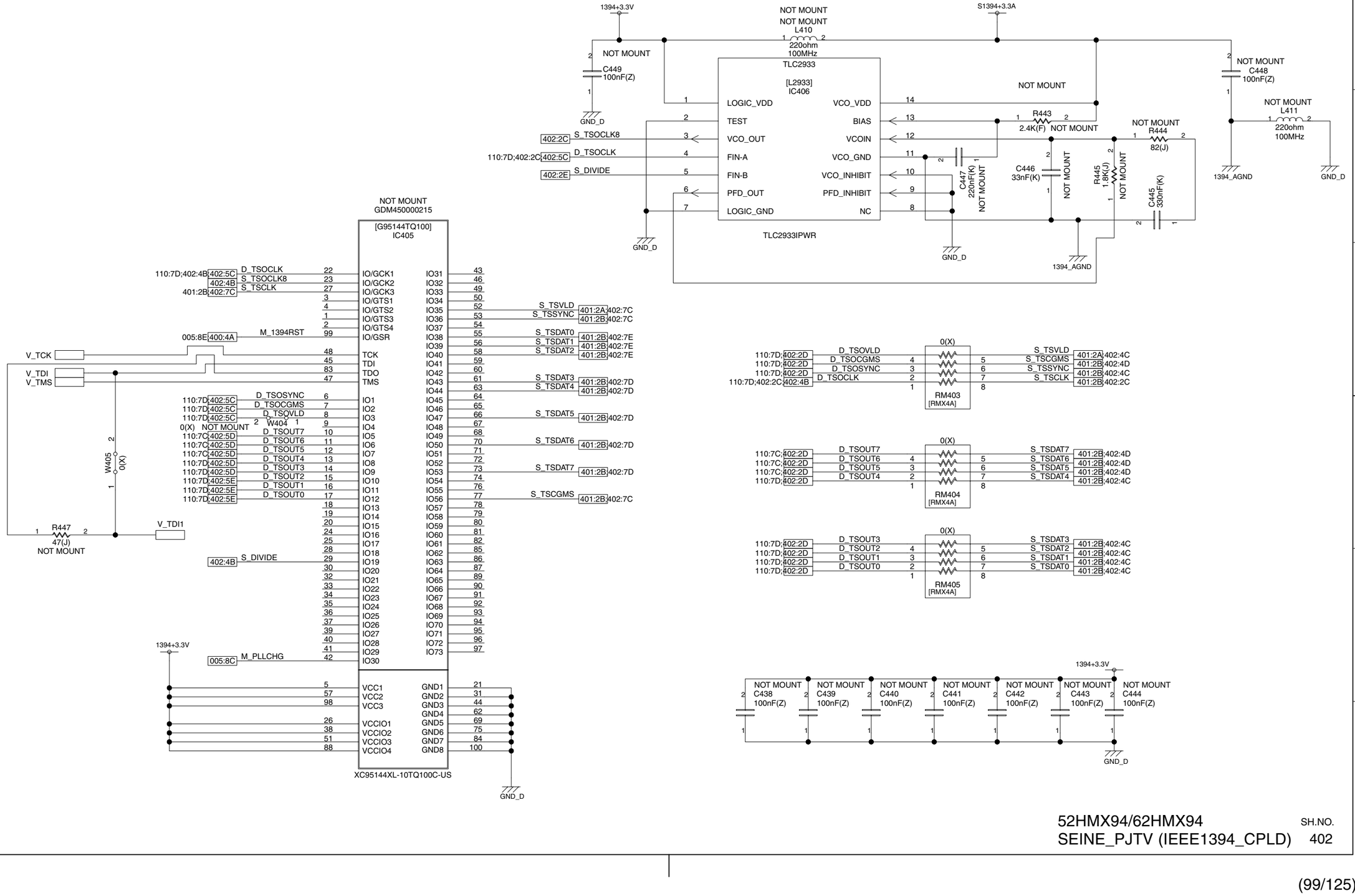
1394+2.5V
C409 100nF(Z) C410 100nF(Z) C411 100nF(Z) C412 100nF(Z) C413 100nF(Z) C414 100nF(Z)
GND_D

S1394+3.3V
C418 100nF(Z) C419 100nF(Z) C420 100nF(Z) C421 100nF(Z) [CP] C422 47uF(M) 6V
1394_GND

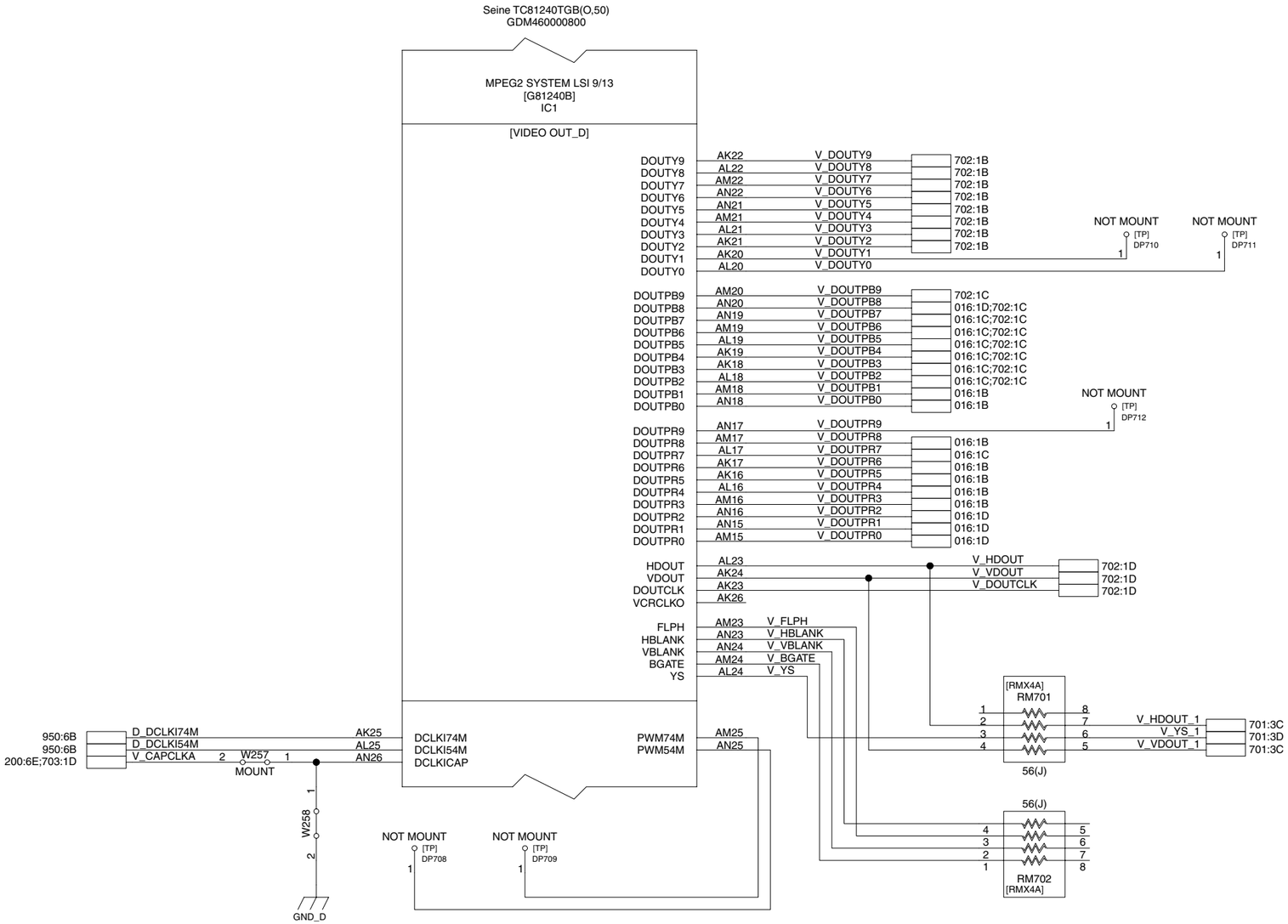
S1394+2.5V
C415 100nF(Z) C416 100nF(Z) [CP] C417 47uF(M) 6V
1394_GND

1394+3.3V
NOT MOUNT
[CP] C423 6.3V 47uF(M)
C424 100nF(Z) C425 100nF(Z) C426 100nF(Z) C427 100nF(Z) C428 100nF(Z) C429 100nF(Z) C430 100nF(Z) C431 100nF(Z)
NOT MOUNT C432 100nF(Z)
GND_D

52HMX94/62HMX94
SEINE_PJTV (IEEE1394_2)
SH.NO. 401

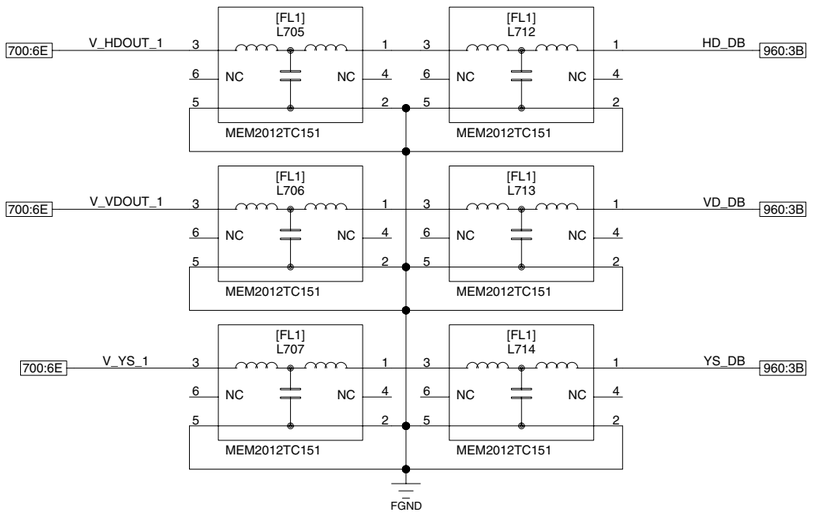


52HMX94/62HMX94 SH.NO.
SEINE_PJTV (IEEE1394_CPLD) 402



52HMX94/62HMX94
SEINE_PJTV (VIDEO_OUT-SEINE_DIGITAL_OUT)

SH.NO. 700



L601-L614: NotMount (PDP, LCOS)

52HMX94/62HMX94
SEINE_PJTV (VIDEO_OUT-SYNOUT)

SH.NO.
701

PIO11(M_LVDSPDWN

L4000	New L4000
1 NORMAL	MUTE
0 MUTE	NORMAL

005:8C — M_LVDSPDWN

R706 100(J) — V_DOMUTE — 703:1A

NOT MOUNT R707 100(J)

R708 100(J) NOT MOUNT

+3.3V, GND_D

R709 100(J)

GDM450000288

BUS-I/F [EC16823] IC703

1OE, 1CLR, 1CLKEN, 1CLK, 2OE, 2CLR, 2CLKEN, 2CLK

SN74ALVCH16823DGGR

V_DOUTY9, V_DOUTY8, V_DOUTY7, V_DOUTY6 — 700:5B, 700:5B, 700:5B, 700:5C — 22(J) — RM703 [RMX4A] — V_DOYA9, V_DOYA8, V_DOYA7, V_DOYA6

V_DOUTY5, V_DOUTY4, V_DOUTY3, V_DOUTY2 — 700:5C, 700:5C, 700:5C, 700:5C — 22(J) — RM704 [RMX4A] — V_DOYA5, V_DOYA4, V_DOYA3, V_DOYA2

V_DOUTPB9, V_DOUTPB8, V_DOUTPB7, V_DOUTPB6 — 700:5C, 016:1D;700:5C, 016:1C;700:5C, 016:1C;700:5C — 22(J) — RM705 [RMX4A] — V_DOPBA9, V_DOPBA8, V_DOPBA7, V_DOPBA6

V_DOUTPB5, V_DOUTPB4, V_DOUTPB3, V_DOUTPB2 — 016:1C;700:5C, 016:1C;700:5C, 016:1C;700:5C, 016:1C;700:5C — 22(J) — RM706 [RMX4A] — V_DOPBA5, V_DOPBA4, V_DOPBA3, V_DOPBA2

V_HDOUT — 700:5D — R703 22(J) — V_DOHDA

V_VDOUT — 700:5D — R704 22(J) — V_DOVDA

V_DOUTCLK — 700:5D — R705 22(J)

V_DOYA2, V_DOYA3, V_DOYA4, V_DOYA5, V_DOYA6, V_DOYA7, V_DOYA8, V_DOYA9, V_DOHDA

V_DOPBA2, V_DOPBA3, V_DOPBA4, V_DOPBA5, V_DOPBA6, V_DOPBA7, V_DOPBA8, V_DOPBA9, V_DOVDA

1D1–1D9, 2D1–2D9

1Q1–1Q9: V_DOYB2, V_DOYB3, V_DOYB4, V_DOYB5, V_DOYB6, V_DOYB7, V_DOYB8, V_DOYB9, V_DOHDB

2Q1–2Q9: V_DOPBB2, V_DOPBB3, V_DOPBB4, V_DOPBB5, V_DOPBB6, V_DOPBB7, V_DOPBB8, V_DOPBB9, V_DOVDB

[VCC] 7, 22, 35, 50 — [GND] 4, 11, 18, 25, 32, 39, 46, 53

NOT MOUNT C706 100nF(Z) — C705 100nF(Z) — C704 100nF(Z) — C702 100nF(Z)

GDM450000195

BUS SWITCH [CL1G125] IC701

OE, A, Y, [VCC], [GND]

SN74CBTLV1G125DBVR

100nF(Z) C701

V_DOYB9, V_DOYB8, V_DOYB7, V_DOYB6 — 22(J) — RM707 [RMX4A] — V_SEINEY9, V_SEINEY8, V_SEINEY7, V_SEINEY6

V_DOYB5, V_DOYB4, V_DOYB3, V_DOYB2 — 22(J) — RM708 [RMX4A] — V_SEINEY5, V_SEINEY4, V_SEINEY3, V_SEINEY2

V_DOPBB9, V_DOPBB8, V_DOPBB7, V_DOPBB6 — 22(J) — RM709 [RMX4A] — V_SEINEC9, V_SEINEC8, V_SEINEC7, V_SEINEC6

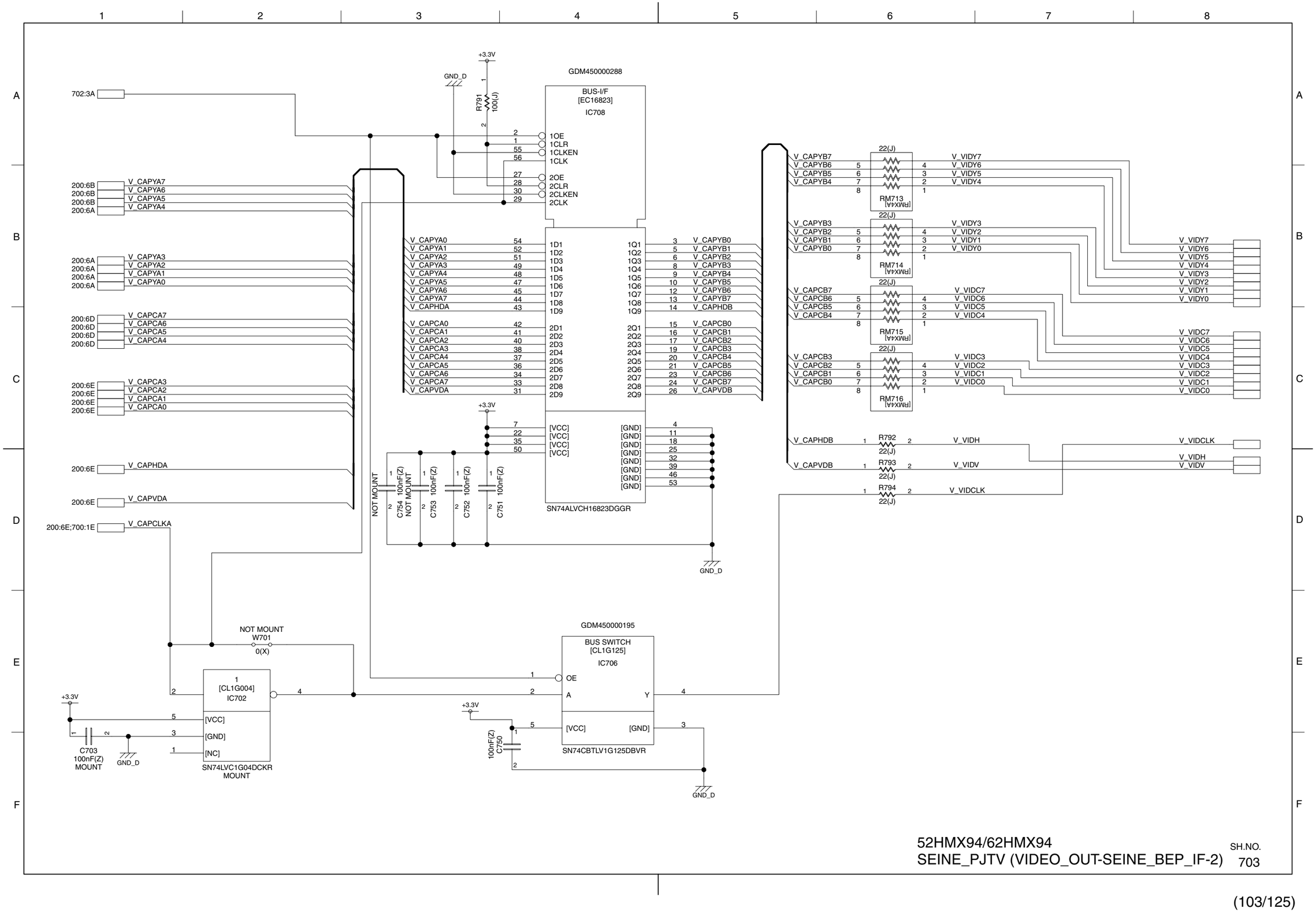
V_DOPBB5, V_DOPBB4, V_DOPBB3, V_DOPBB2 — 22(J) — RM710 [RMX4A] — V_SEINEC5, V_SEINEC4, V_SEINEC3, V_SEINEC2

V_DOHDB — R710 22(J) — V_SEINEHD — V_SEINEHD

V_DOVDB — R711 22(J) — V_SEINEVD — V_SEINEVD

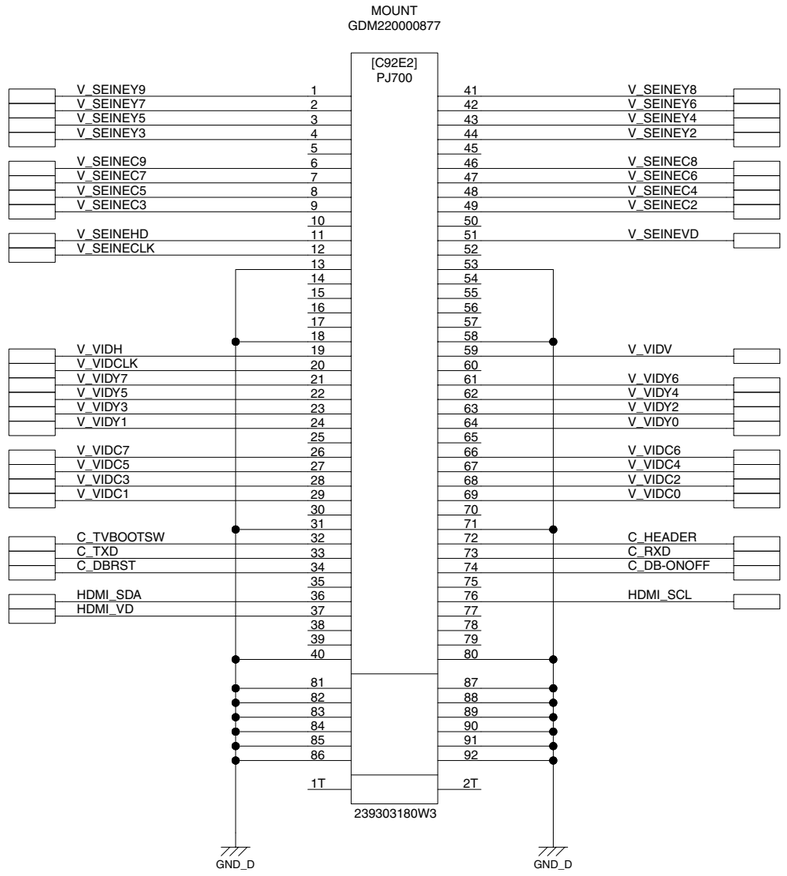
R712 22(J) — V_SEINECLK — V_SEINECLK

52HMX94/62HMX94
SEINE_PJTV (VIDEO_OUT-SEINE_BEP_IF) SH.NO. 702



52HMX94/62HMX94
SEINE_PJTV (VIDEO_OUT-SEINE_BEP_IF-2)

SH.NO. 703



52HMX94/62HMX94
SEINE_PJTV (VIDEO_OUT-SEINE_BEP_IF-3)

SH.NO. 704

Seine TC81240TGB(O,50)
GDM460000800

MPEG2 SYSTEM LSI 10/13
[G81240B]
IC1

[VIDEO OUT_A]

YOUT AE31
PBOUT AF31
PROUT AG31

VCRYOUT AA31
VCRCOUT AB31
VCRCVOUT AC31

YNEG AE32
PBNEG AF32
PRNEG AG32

VCRYNEG AA32
VCRCNEG AB32
VCRCVNEG AC32

HSYNC AL28
VSYNC AM28
FASTBLK AK28
CSYNC1 AN27
CSYNC0 AN28

[TP] DP703
[TP] DP704
[TP] DP705
[TP] DP706
[TP] DP707

FSADJ_HD AE33
FSADJ_VCR AA33
VBS_HD AF33
VBS_VCR AB33
VREF_HD AG33
VREF_VCR AC33

DPVD_HD AD29
DPVD_VCR AA29
APVD_HD1 AD30
APVD_HD2 AE30
APVD_HD3 AF30
APVD_VCR1 AA30
APVD_VCR2 AB30
APVD_VCR3 AC30

DPVS_HD AE29
DPVS_VCR AB29
APVS_HD AF29
APVS_VCR AC29

+2.5V-SEINEDAC

C709 0.1uF(Z)
C710 0.1uF(Z)
C712 0.1uF(Z)
C714 0.01uF(K)
C716 0.01uF(K)
C717 0.01uF(K)
C713 0.1uF(Z)
C715 0.1uF(Z)

C718 0.1uF(Z)
C719 0.1uF(Z)
C720 0.1uF(Z)
C721 0.1uF(Z)
C722 0.1uF(Z)
C723 0.1uF(Z)

R714 300(F)
R715 300(F)

GND_A

V_YOUT 711:2B
V_PBOUT 711:2D
V_PROUT 711:2E

R722 75(F)
R726 75(F)
R730 75(F)

V_VCRCVOUT 715:1A

R734 75(F)
R723 68(F)
R735 75(F)
R727 68(F)
R736 75(F)
R731 68(F)

R716 75(J)
R718 75(J)
R720 75(J)
R724 75(J)
R728 75(J)
R732 75(J)

R717 75(J)
R719 75(J)
R721 75(J)
R725 75(J)
R729 75(J)
R733 75(J)

52HMX94/62HMX94
SEINE_PJTV (VIDEO_OUT-SEINE_DAOUT)

SH.NO. 710

NOT MOUNT
GDM220000279

[CN5]
PJ205

1
2
3
4
5

B5B-PH-K-S

GND_A

710:8A V_YOUT

NOT MOUNT
W707
0(X)

NOT MOUNT
W710
0(X)

L717
560nH(J)

L720
560nH(J)

C724
82pF(J)

C727
150pF(J)

C730
82pF(J)

R752
75(F)

GND_A

V_LPFYOUT 712:1C

NOT MOUNT
W708
0(X)

NOT MOUNT
W711
0(X)

710:8A V_PBOUT

L718
560nH(J)

L721
560nH(J)

C725
82pF(J)

C728
150pF(J)

C731
82pF(J)

R753
75(F)

GND_A

V_LPFPBOUT 712:1D

NOT MOUNT
W709
0(X)

NOT MOUNT
W712
0(X)

710:8A V_PROUT

L719
560nH(J)

L722
560nH(J)

C726
82pF(J)

C729
150pF(J)

C732
82pF(J)

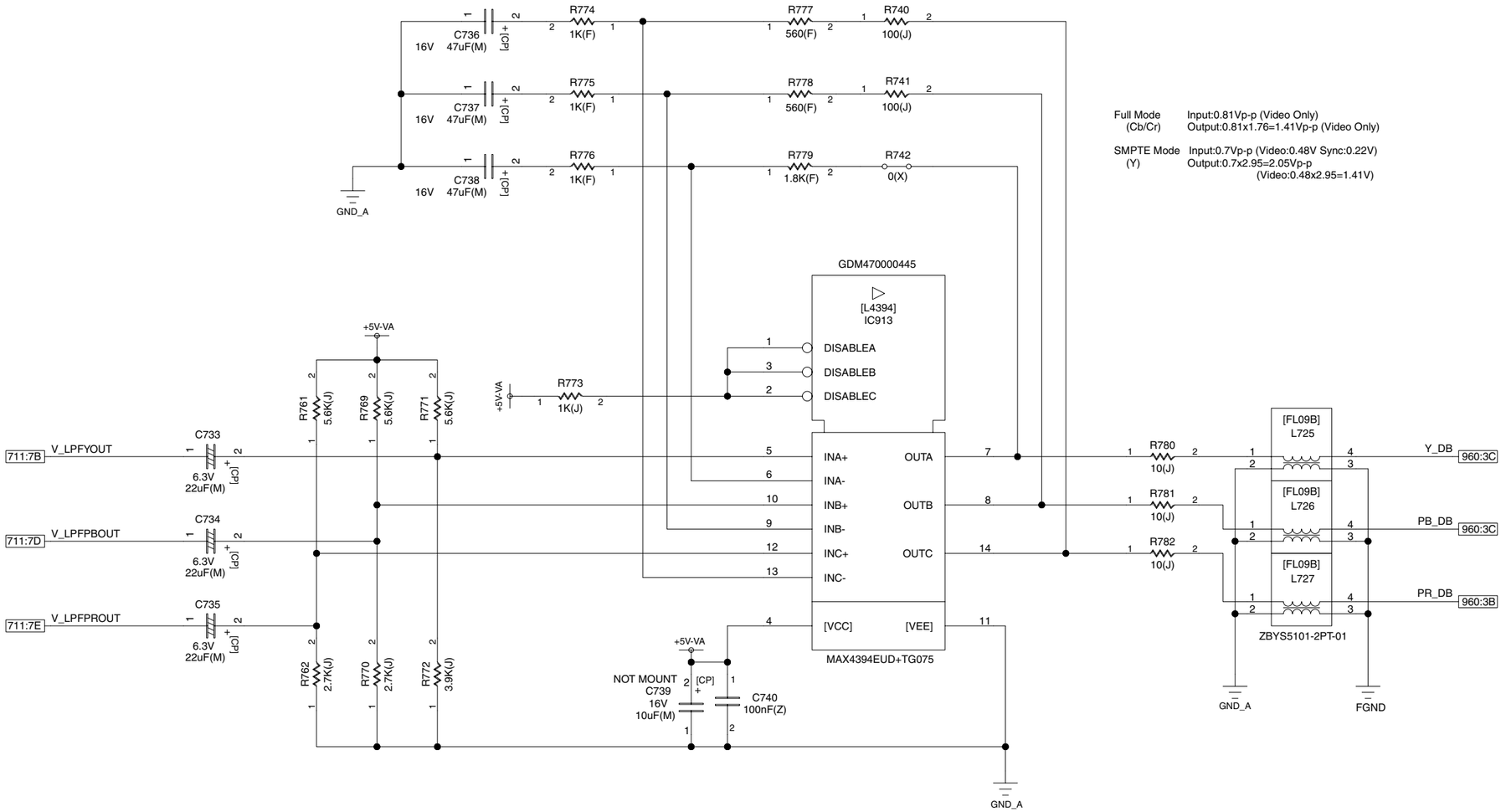
R754
75(F)

GND_A

V_LPFPROUT 712:1D

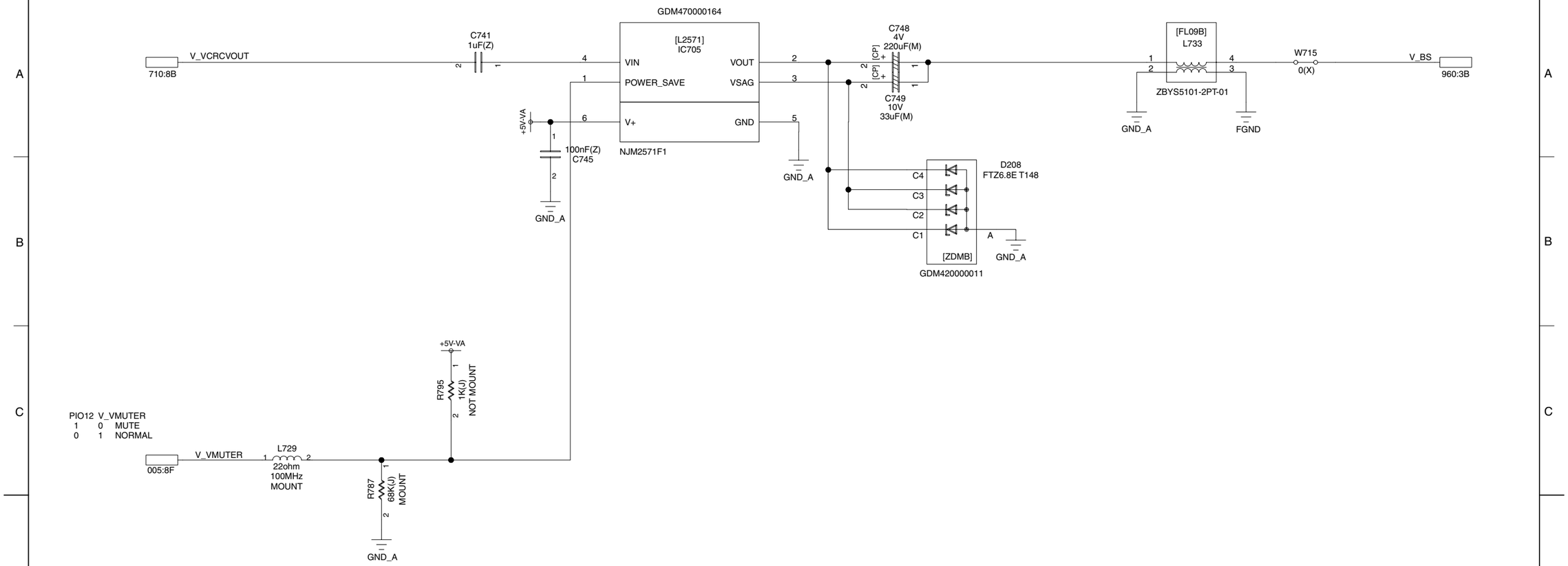
52HMX94/62HMX94
SEINE_PJTV (VIDEO_OUT-HD_OUT_LPF)

SH.NO.
711



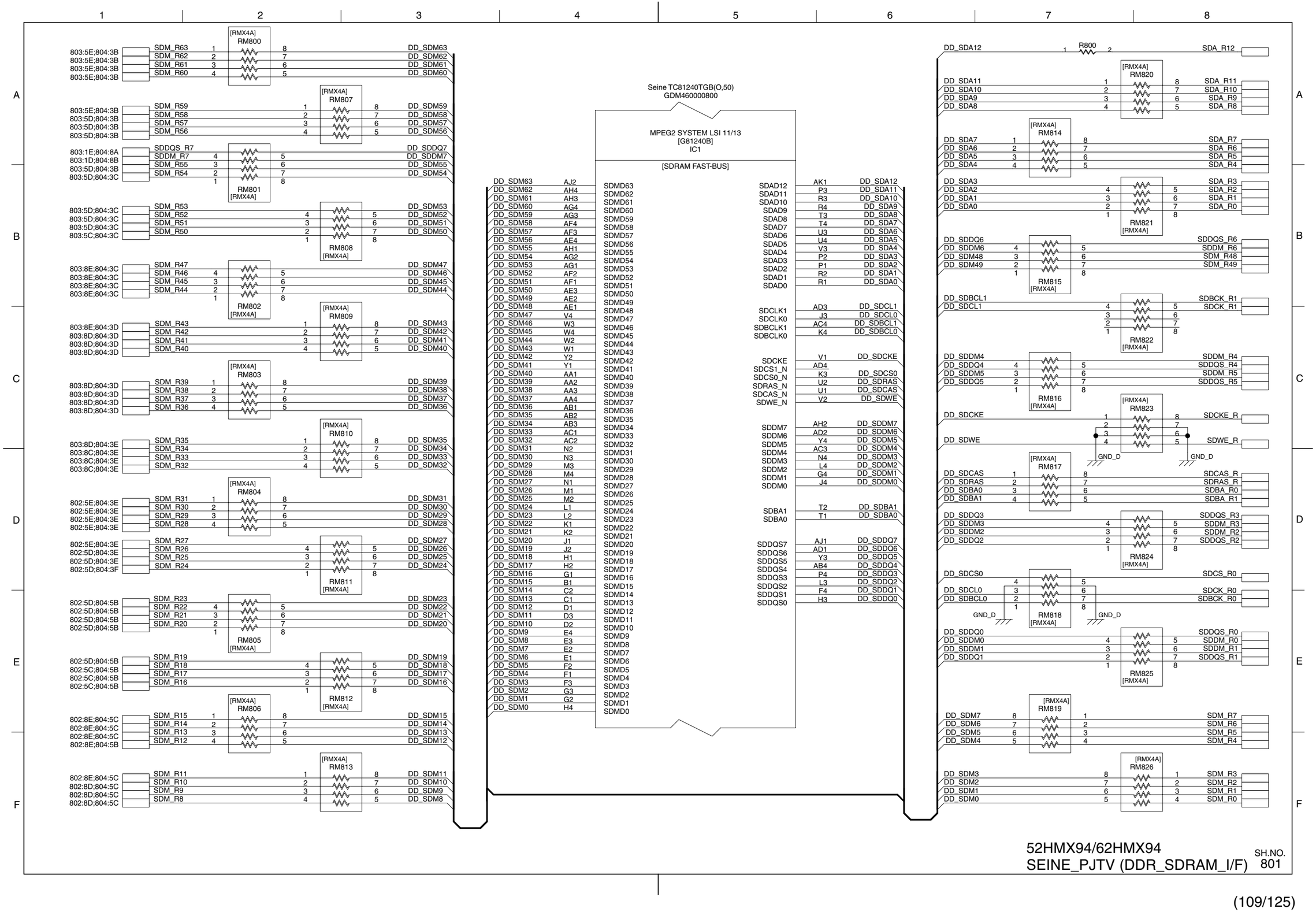
52HMX94/62HMX94
SEINE_PJTV (VIDEO_OUT-HD_OUT_DRIVER)

SH.NO. 712



52HMX94/62HMX94
SEINE_PJTV (VIDEO_OUT-DOWN_CON_OUT_DRIVER)

SH.NO. 715


Seine TC81240TGB(O,50)
GDM460000800
MPEG2 SYSTEM LSI 11/13
[G81240B]
IC1
[SDRAM FAST-BUS]
SDMD63 AJ2
SDMD62 AH4
SDMD61 AH3
SDMD60 AG4
SDMD59 AG3
SDMD58 AF4
SDMD57 AF3
SDMD56 AE4
SDMD55 AH1
SDMD54 AG2
SDMD53 AG1
SDMD52 AF2
SDMD51 AF1
SDMD50 AE3
SDMD49 AE2
SDMD48 AE1
SDMD47 V4
SDMD46 W3
SDMD45 W4
SDMD44 W2
SDMD43 W1
SDMD42 Y2
SDMD41 Y1
SDMD40 AA1
SDMD39 AA2
SDMD38 AA3
SDMD37 AA4
SDMD36 AB1
SDMD35 AB2
SDMD34 AB3
SDMD33 AC1
SDMD32 AC2
SDMD31 N2
SDMD30 N3
SDMD29 M3
SDMD28 M4
SDMD27 N1
SDMD26 M1
SDMD25 M2
SDMD24 L1
SDMD23 L2
SDMD22 K1
SDMD21 K2
SDMD20 J1
SDMD19 J2
SDMD18 H1
SDMD17 H2
SDMD16 G1
SDMD15 B1
SDMD14 C2
SDMD13 C1
SDMD12 D1
SDMD11 D3
SDMD10 D2
SDMD9 E4
SDMD8 E3
SDMD7 E2
SDMD6 E1
SDMD5 F2
SDMD4 F1
SDMD3 F3
SDMD2 G3
SDMD1 G2
SDMD0 H4
SDAD12 AK1
SDAD11 P3
SDAD10 R3
SDAD9 R4
SDAD8 T3
SDAD7 T4
SDAD6 U3
SDAD5 U4
SDAD4 V3
SDAD3 P2
SDAD2 P1
SDAD1 R2
SDAD0 R1
SDCLK1 AD3
SDCLK0 J3
SDBCLK1 AC4
SDBCLK0 K4
SDCKE V1
SDCS1_N AD4
SDCS0_N K3
SDRAS_N U2
SDCAS_N U1
SDWE_N V2
SDDM7 AH2
SDDM6 AD2
SDDM5 Y4
SDDM4 AC3
SDDM3 N4
SDDM2 L4
SDDM1 G4
SDDM0 J4
SDBA1 T2
SDBA0 T1
SDDQS7 AJ1
SDDQS6 AD1
SDDQS5 Y3
SDDQS4 AB4
SDDQS3 P4
SDDQS2 L3
SDDQS1 F4
SDDQS0 H3
DD_SDM63 DD_SDM62 DD_SDM61 DD_SDM60 DD_SDM59 DD_SDM58 DD_SDM57 DD_SDM56 DD_SDM55 DD_SDM54 DD_SDM53 DD_SDM52 DD_SDM51 DD_SDM50 DD_SDM49 DD_SDM48 DD_SDM47 DD_SDM46 DD_SDM45 DD_SDM44 DD_SDM43 DD_SDM42 DD_SDM41 DD_SDM40 DD_SDM39 DD_SDM38 DD_SDM37 DD_SDM36 DD_SDM35 DD_SDM34 DD_SDM33 DD_SDM32 DD_SDM31 DD_SDM30 DD_SDM29 DD_SDM28 DD_SDM27 DD_SDM26 DD_SDM25 DD_SDM24 DD_SDM23 DD_SDM22 DD_SDM21 DD_SDM20 DD_SDM19 DD_SDM18 DD_SDM17 DD_SDM16 DD_SDM15 DD_SDM14 DD_SDM13 DD_SDM12 DD_SDM11 DD_SDM10 DD_SDM9 DD_SDM8 DD_SDM7 DD_SDM6 DD_SDM5 DD_SDM4 DD_SDM3 DD_SDM2 DD_SDM1 DD_SDM0
DD_SDAD12 DD_SDA11 DD_SDA10 DD_SDA9 DD_SDA8 DD_SDA7 DD_SDA6 DD_SDA5 DD_SDA4 DD_SDA3 DD_SDA2 DD_SDA1 DD_SDA0
DD_SDCLK1 DD_SDCL1
DD_SDBCLK1 DD_SDBCL1
DD_SDCKE
DD_SDCS1_N
DD_SDCS0_N DD_SDCS0
DD_SDRAS_N DD_SDRAS
DD_SDCAS_N DD_SDCAS
DD_SDWE_N DD_SDWE
DD_SDDM7 DD_SDDM6 DD_SDDM5 DD_SDDM4 DD_SDDM3 DD_SDDM2 DD_SDDM1 DD_SDDM0
DD_SDBA1 DD_SDBA0
DD_SDDQS7 DD_SDDQ7 DD_SDDQS6 DD_SDDQ6 DD_SDDQS5 DD_SDDQ5 DD_SDDQS4 DD_SDDQ4 DD_SDDQS3 DD_SDDQ3 DD_SDDQS2 DD_SDDQ2 DD_SDDQS1 DD_SDDQ1 DD_SDDQS0 DD_SDDQ0
[RMX4A] RM800
[RMX4A] RM801
[RMX4A] RM802
[RMX4A] RM803
[RMX4A] RM804
[RMX4A] RM805
[RMX4A] RM806
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[RMX4A] RM809
[RMX4A] RM810
[RMX4A] RM811
[RMX4A] RM812
[RMX4A] RM813
R800
[RMX4A] RM814
[RMX4A] RM815
[RMX4A] RM816
[RMX4A] RM817
[RMX4A] RM818
[RMX4A] RM819
[RMX4A] RM820
[RMX4A] RM821
[RMX4A] RM822
[RMX4A] RM823
[RMX4A] RM824
[RMX4A] RM825
[RMX4A] RM826
GND_D
52HMX94/62HMX94
SEINE_PJTV (DDR_SDRAM_I/F)
SH.NO. 801

EDD2516AKTA-6B-E

TSOP II
[MDSD16M16]
IC802

801:8B;803:1A 804:5E	SDA_R0	SDA_R0 29	A0
801:8B;803:1A 804:5E	SDA_R1	SDA_R1 30	A1
801:8B;803:1A 804:5E	SDA_R2	SDA_R2 31	A2
801:8B;803:1A 804:5F	SDA_R3	SDA_R3 32	A3
801:8B;803:1B 804:5E	SDA_R4	SDA_R4 35	A4
801:8A;803:1B 804:5E	SDA_R5	SDA_R5 36	A5
801:8A;803:1B 804:5E	SDA_R6	SDA_R6 37	A6
801:8A;803:1B 804:5E	SDA_R7	SDA_R7 38	A7
801:8A;803:1B 804:5D	SDA_R8	SDA_R8 39	A8
801:8A;803:1B 804:5D	SDA_R9	SDA_R9 40	A9
801:8A;803:1B 804:5E	SDA_R10	SDA_R10 28	A10/AP
801:8A;803:1B 804:5E	SDA_R11	SDA_R11 41	A11
801:8A;803:1B 804:5D	SDA_R12	SDA_R12 42	A12
801:8D;803:1C 804:8C	SDBA_R1	SDBA_R1 27	BS1
801:8D;803:1C 804:8C	SDBA_R0	SDBA_R0 26	BS0
801:8E 804:8D	SDBCK_R0	SDBCK_R0 46	CLK
801:8E 804:8D	SDCK_R0	SDCK_R0 45	CLK
801:8C;803:1C 804:8C	SDCKE_R	SDCKE_R 44	CKE
801:8D;803:1C 804:8D	SDCS_R0	SDCS_R0 24	CS
801:8D;803:1C 804:8C	SDRAS_R	SDRAS_R 23	RAS
801:8D;803:1D 804:8C	SDCAS_R	SDCAS_R 22	CAS
801:8C;803:1D 804:8C	SDWE_R	SDWE_R 21	WE
801:8E 804:8D	SDDM_R0	SDDM_R2 R801 33(J) 20	LDM
801:8E 804:8D	SDDM_R1	SDDM_R3 R802 33(J) 47	UDM
801:8E 804:8D	SDDQS_R0	SDDQS_R2 R803 33(J) 16	LDQS
801:8E 804:8D	SDDQS_R1	SDDQS_R3 R804 33(J) 51	UDQS
801:8D 804:8D	SDDM_R2		NC
801:8D 804:8C	SDDM_R3		NC
801:8D 804:8D	SDDQS_R2		NC
801:8D 804:8C	SDDQS_R3		NC
			NC
			NC
			NC
			NC
			NC
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			[VDDQ]
			[VDDQ]
			[VDDQ]
			[VDDQ]
			[VDD]
			[VDD]
			[VDD]
			[VREF]

			[VSSQ]
			[VSSQ]
			[VSSQ]
			[VSSQ]
			[VSSQ]
			[VSS]
			[VSS]
			[VSS]

DQ0–DQ15 ▽ → [RMX4A] RM827 / RM828 / RM829 / RM830 (33(J)) → SDM_R16 801:1E 804:5B … SDM_R31 801:1E 804:5B

DQ0	RM827	1	SDM_R16 801:1E 804:5B
DQ1	RM827	2	SDM_R17 801:1E 804:5B
DQ2	RM827	3	SDM_R18 801:1E 804:5B
DQ3	RM827	4	SDM_R19 801:1E 804:5B
DQ4	RM828	1	SDM_R20 801:1E 804:5B
DQ5	RM828	2	SDM_R21 801:1E 804:5B
DQ6	RM828	3	SDM_R22 801:1E 804:5B
DQ7	RM828	4	SDM_R23 801:1E 804:5B
DQ8	RM829	1	SDM_R24 801:1D 804:3F
DQ9	RM829	2	SDM_R25 801:1D 804:3E
DQ10	RM829	3	SDM_R26 801:1D 804:3E
DQ11	RM829	4	SDM_R27 801:1D 804:3E
DQ12	RM830	1	SDM_R28 801:1D 804:3E
DQ13	RM830	2	SDM_R29 801:1D 804:3E
DQ14	RM830	3	SDM_R30 801:1D 804:3E
DQ15	RM830	4	SDM_R31 801:1D 804:3E

+2.5_DDR

C876 10nF(K) NOT MOUNT — GND_D

DDR_VREF — 802:5F;803:1F;803:5F;805:8A

GND_D GND_D

EDD2516AKTA-6B-E

TSOP II
[MDSD16M16]
IC801

SDA_R0	SDA_R0 29	A0	
SDA_R1	SDA_R1 30	A1	
SDA_R2	SDA_R2 31	A2	
SDA_R3	SDA_R3 32	A3	
SDA_R4	SDA_R4 35	A4	
SDA_R5	SDA_R5 36	A5	
SDA_R6	SDA_R6 37	A6	
SDA_R7	SDA_R7 38	A7	
SDA_R8	SDA_R8 39	A8	
SDA_R9	SDA_R9 40	A9	
SDA_R10	SDA_R10 28	A10/AP	
SDA_R11	SDA_R11 41	A11	
SDA_R12	SDA_R12 42	A12	
SDBA_R1	SDBA_R1 27	BS1	
SDBA_R0	SDBA_R0 26	BS0	
SDBCK_R0	SDBCK_R0 46	CLK	
SDCK_R0	SDCK_R0 45	CLK	
SDCKE_R	SDCKE_R 44	CKE	
SDCS_R0	SDCS_R0 24	CS	
SDRAS_R	SDRAS_R 23	RAS	
SDCAS_R	SDCAS_R 22	CAS	
SDWE_R	SDWE_R 21	WE	
SDDM_R0	SDDM_R0 R805 33(J) 20	LDM	
SDDM_R1	SDDM_R1 R806 33(J) 47	UDM	
SDDQS_R0	SDDQS_R0 R807 33(J) 16	LDQS	
SDDQS_R1	SDDQS_R1 R808 33(J) 51	UDQS	
		NC	
		NC	
		NC	
		NC	
		NC	
		NC	
		[VDDQ]	[VSSQ]
		[VDDQ]	[VSSQ]
		[VDDQ]	[VSSQ]
		[VDDQ]	[VSSQ]
		[VDDQ]	[VSSQ]
		[VDD]	[VSS]
		[VDD]	[VSS]
		[VDD]	[VSS]
		[VREF]	

DQ0–DQ15 ▽ → [RMX4A] RM831 / RM832 / RM833 / RM834 (33(J)) → SDM_R0 801:8F 804:5D … SDM_R15 801:1E 804:5C

DQ0	RM831	1	SDM_R0 801:8F 804:5D
DQ1	RM831	2	SDM_R1 801:8F 804:5D
DQ2	RM831	3	SDM_R2 801:8F 804:5D
DQ3	RM831	4	SDM_R3 801:8F 804:5D
DQ4	RM832	1	SDM_R4 801:8F 804:5C
DQ5	RM832	2	SDM_R5 801:8F 804:5C
DQ6	RM832	3	SDM_R6 801:8E 804:5C
DQ7	RM832	4	SDM_R7 801:8E 804:5C
DQ8	RM833	1	SDM_R8 801:1F 804:5C
DQ9	RM833	2	SDM_R9 801:1F 804:5C
DQ10	RM833	3	SDM_R10 801:1F 804:5C
DQ11	RM833	4	SDM_R11 801:1F 804:5C
DQ12	RM834	1	SDM_R12 801:1F 804:5B
DQ13	RM834	2	SDM_R13 801:1F 804:5C
DQ14	RM834	3	SDM_R14 801:1E 804:5C
DQ15	RM834	4	SDM_R15 801:1E 804:5C

+2.5_DDR

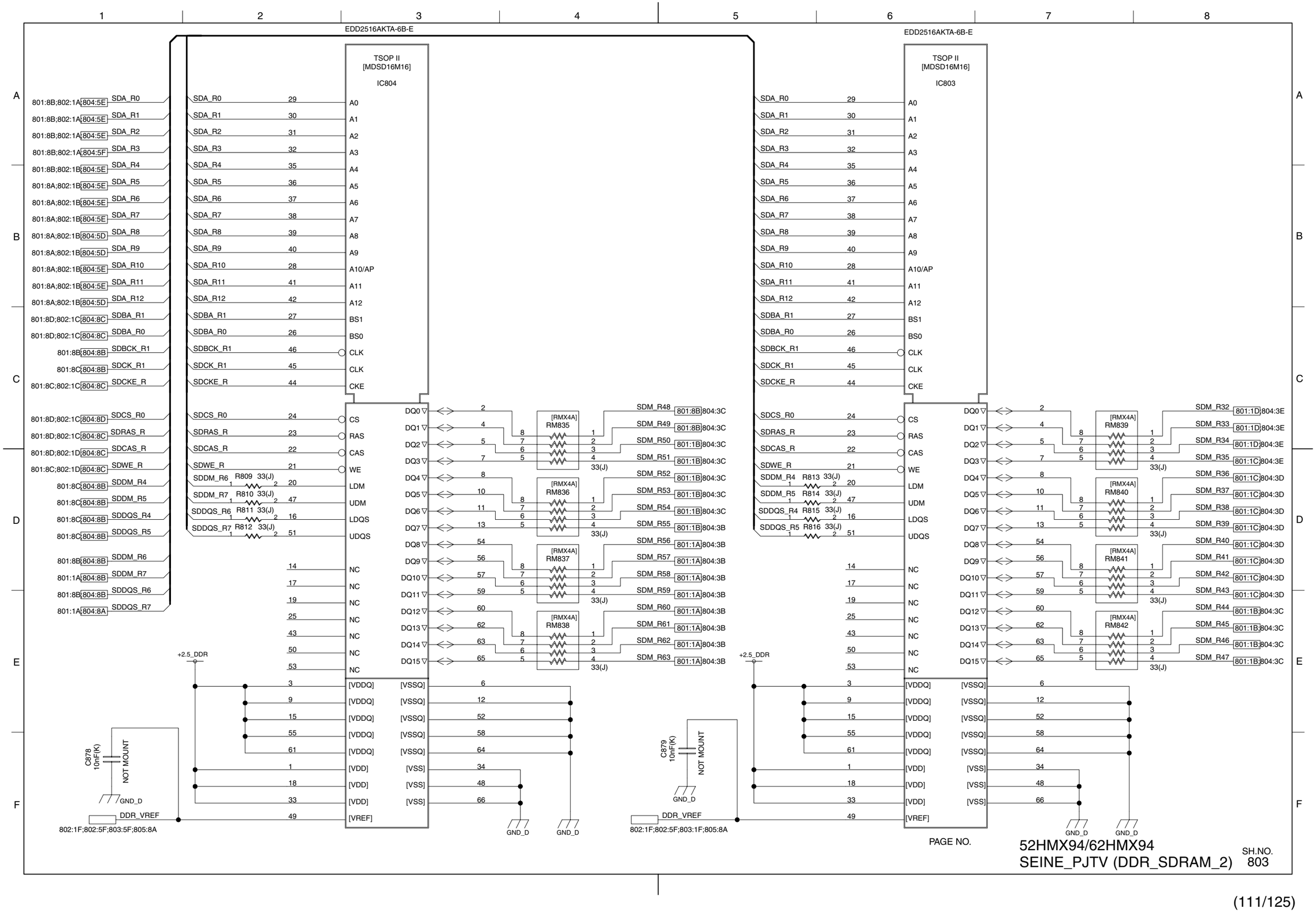
C877 10nF(K) NOT MOUNT — GND_D

DDR_VREF — 802:1F;803:1F;803:5F;805:8A

GND_D GND_D

52HMX94/62HMX94
SEINE_PJTV (DDR_SDRAM_1)

SH.NO. 802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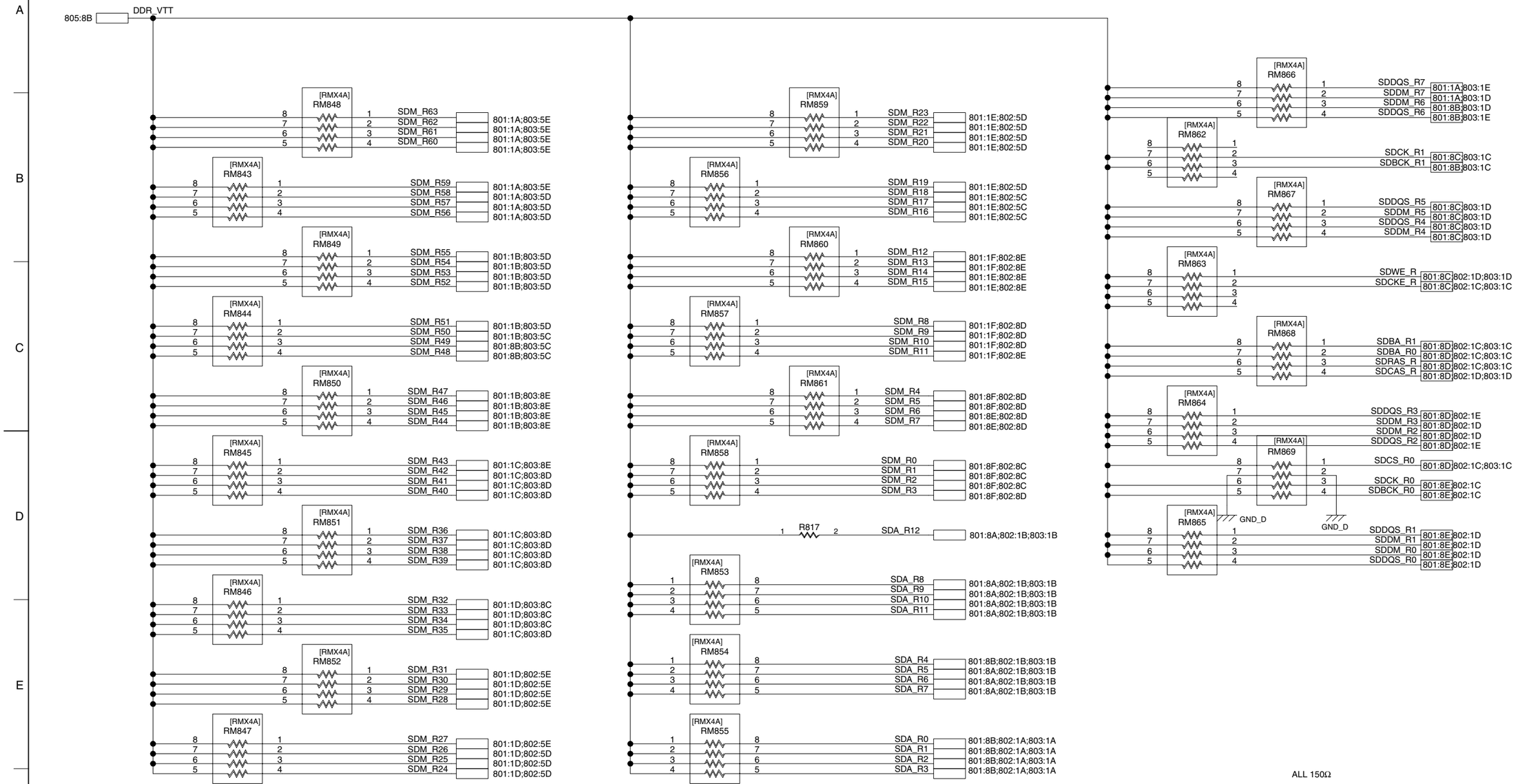
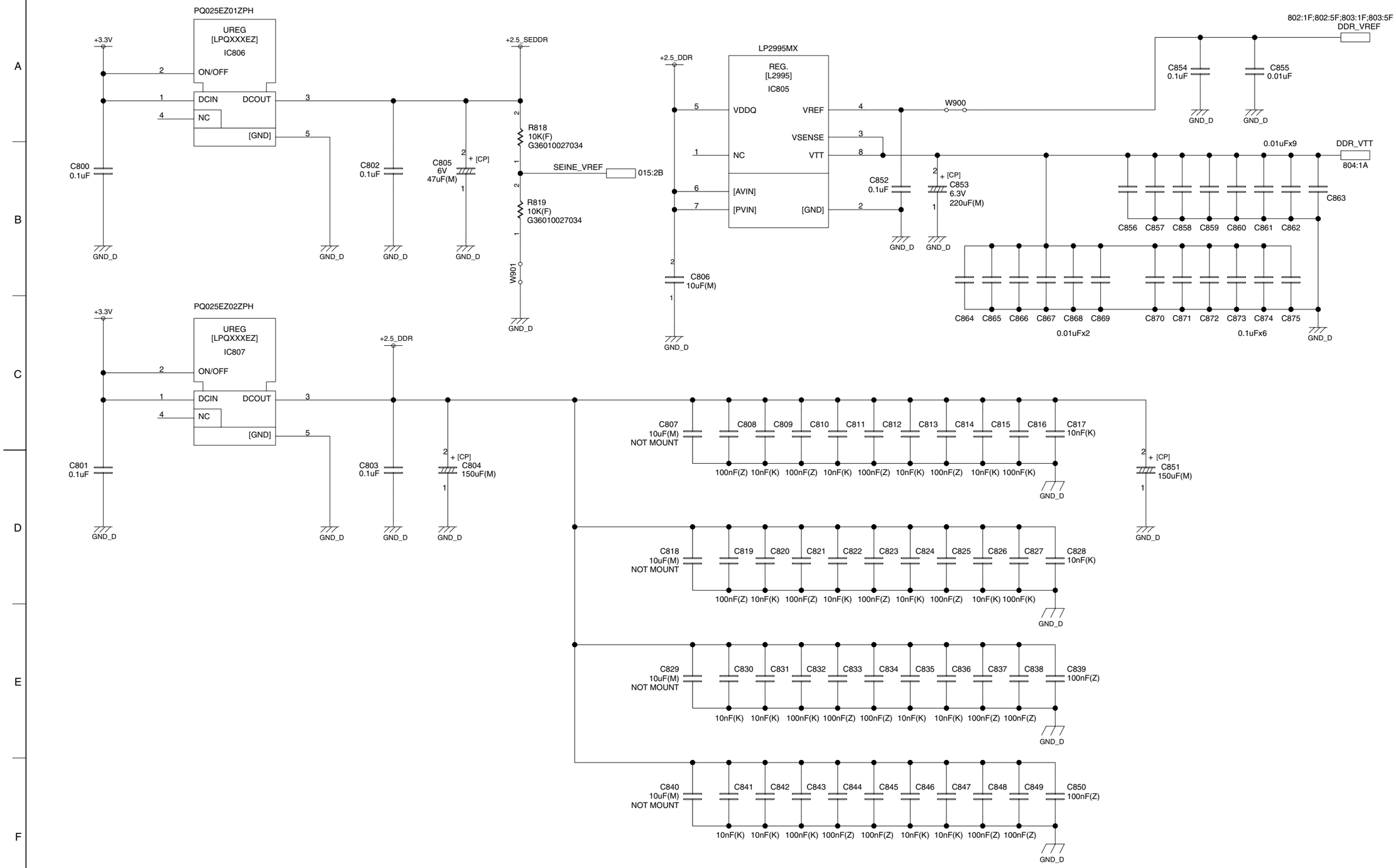
TSOP II
[MDSD16M16]
IC804
EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC803
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
A12
BS1
BS0
CLK
CLK
CKE
CS
RAS
CAS
WE
LDM
UDM
LDQS
UDQS
NC
[VDDQ]
[VSSQ]
[VDD]
[VSS]
[VREF]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
[RMX4A]
RM835
RM836
RM837
RM838
RM839
RM840
RM841
RM842
33(J)
R809 33(J)
R810 33(J)
R811 33(J)
R812 33(J)
R813 33(J)
R814 33(J)
R815 33(J)
R816 33(J)
+2.5_DDR
C878
10nF(K)
NOT MOUNT
C879
10nF(K)
NOT MOUNT
GND_D
DDR_VREF
802:1F;802:5F;803:5F;805:8A
802:1F;802:5F;803:1F;805:8A
PAGE NO.
52HMX94/62HMX94
SEINE_PJTV (DDR_SDRAM_2)
SH.NO.
803

(111/125)

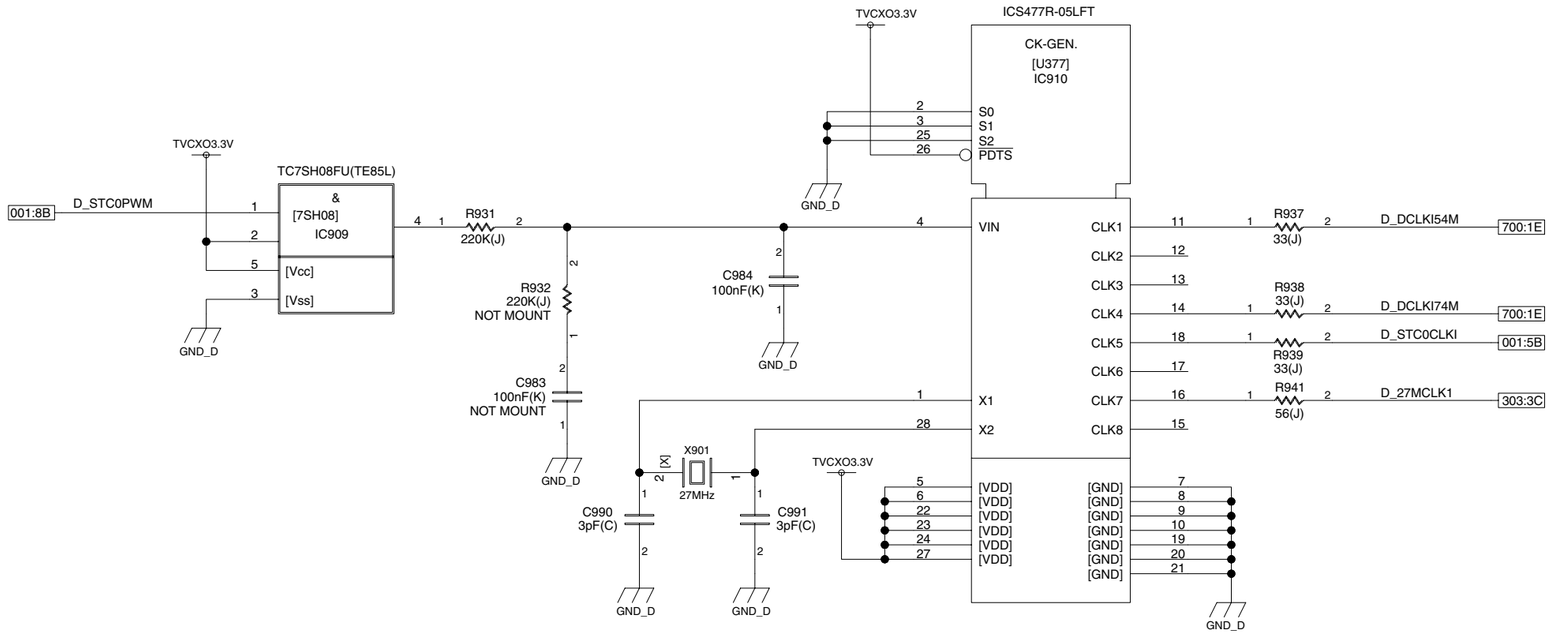

1
2
3
4
5
6
7
8
A
B
C
D
E
F
805:8B
DDR_VTT
[RMX4A] RM848
SDM_R63 SDM_R62 SDM_R61 SDM_R60
801:1A;803:5E 801:1A;803:5E 801:1A;803:5E 801:1A;803:5E
[RMX4A] RM843
SDM_R59 SDM_R58 SDM_R57 SDM_R56
801:1A;803:5E 801:1A;803:5D 801:1A;803:5D 801:1A;803:5D
[RMX4A] RM849
SDM_R55 SDM_R54 SDM_R53 SDM_R52
801:1B;803:5D 801:1B;803:5D 801:1B;803:5D 801:1B;803:5D
[RMX4A] RM844
SDM_R51 SDM_R50 SDM_R49 SDM_R48
801:1B;803:5D 801:1B;803:5C 801:8B;803:5C 801:8B;803:5C
[RMX4A] RM850
SDM_R47 SDM_R46 SDM_R45 SDM_R44
801:1B;803:8E 801:1B;803:8E 801:1B;803:8E 801:1B;803:8E
[RMX4A] RM845
SDM_R43 SDM_R42 SDM_R41 SDM_R40
801:1C;803:8E 801:1C;803:8D 801:1C;803:8D 801:1C;803:8D
[RMX4A] RM851
SDM_R36 SDM_R37 SDM_R38 SDM_R39
801:1C;803:8D 801:1C;803:8D 801:1C;803:8D 801:1C;803:8D
[RMX4A] RM846
SDM_R32 SDM_R33 SDM_R34 SDM_R35
801:1D;803:8C 801:1D;803:8C 801:1D;803:8C 801:1C;803:8D
[RMX4A] RM852
SDM_R31 SDM_R30 SDM_R29 SDM_R28
801:1D;802:5E 801:1D;802:5E 801:1D;802:5E 801:1D;802:5E
[RMX4A] RM847
SDM_R27 SDM_R26 SDM_R25 SDM_R24
801:1D;802:5E 801:1D;802:5D 801:1D;802:5D 801:1D;802:5D
[RMX4A] RM859
SDM_R23 SDM_R22 SDM_R21 SDM_R20
801:1E;802:5D 801:1E;802:5D 801:1E;802:5D 801:1E;802:5D
[RMX4A] RM856
SDM_R19 SDM_R18 SDM_R17 SDM_R16
801:1E;802:5D 801:1E;802:5C 801:1E;802:5C 801:1E;802:5C
[RMX4A] RM860
SDM_R12 SDM_R13 SDM_R14 SDM_R15
801:1F;802:8E 801:1F;802:8E 801:1E;802:8E 801:1E;802:8E
[RMX4A] RM857
SDM_R8 SDM_R9 SDM_R10 SDM_R11
801:1F;802:8D 801:1F;802:8D 801:1F;802:8D 801:1F;802:8E
[RMX4A] RM861
SDM_R4 SDM_R5 SDM_R6 SDM_R7
801:8F;802:8D 801:8F;802:8D 801:8E;802:8D 801:8E;802:8D
[RMX4A] RM858
SDM_R0 SDM_R1 SDM_R2 SDM_R3
801:8F;802:8C 801:8F;802:8C 801:8F;802:8C 801:8F;802:8D
R817
SDA_R12
801:8A;802:1B;803:1B
[RMX4A] RM853
SDA_R8 SDA_R9 SDA_R10 SDA_R11
801:8A;802:1B;803:1B 801:8A;802:1B;803:1B 801:8A;802:1B;803:1B 801:8A;802:1B;803:1B
[RMX4A] RM854
SDA_R4 SDA_R5 SDA_R6 SDA_R7
801:8B;802:1B;803:1B 801:8A;802:1B;803:1B 801:8A;802:1B;803:1B 801:8A;802:1B;803:1B
[RMX4A] RM855
SDA_R0 SDA_R1 SDA_R2 SDA_R3
801:8B;802:1A;803:1A 801:8B;802:1A;803:1A 801:8B;802:1A;803:1A 801:8B;802:1A;803:1A
[RMX4A] RM866
SDDQS_R7 SDDM_R7 SDDM_R6 SDDQS_R6
801:1A;803:1E 801:1A;803:1D 801:8B;803:1D 801:8B;803:1E
[RMX4A] RM862
SDCK_R1 SDBCK_R1
801:8C;803:1C 801:8B;803:1C
[RMX4A] RM867
SDDQS_R5 SDDM_R5 SDDQS_R4 SDDM_R4
801:8C;803:1D 801:8C;803:1D 801:8C;803:1D 801:8C;803:1D
[RMX4A] RM863
SDWE_R SDCKE_R
801:8C;802:1D;803:1D 801:8C;802:1C;803:1C
[RMX4A] RM868
SDBA_R1 SDBA_R0 SDRAS_R SDCAS_R
801:8D;802:1C;803:1C 801:8D;802:1C;803:1C 801:8D;802:1C;803:1C 801:8D;802:1D;803:1D
[RMX4A] RM864
SDDQS_R3 SDDM_R3 SDDM_R2 SDDQS_R2
801:8D;802:1E 801:8D;802:1D 801:8D;802:1D 801:8D;802:1E
[RMX4A] RM869
SDCS_R0 SDCK_R0 SDBCK_R0
801:8D;802:1C;803:1C 801:8E;802:1C 801:8E;802:1C
[RMX4A] RM865
GND_D GND_D
SDDQS_R1 SDDM_R1 SDDM_R0 SDDQS_R0
801:8E;802:1D 801:8E;802:1D 801:8E;802:1D 801:8E;802:1D
ALL 150Ω
52HMX94/62HMX94
SEINE_PJTV (DDR_SDRAM_TERMINATOR)
SH.NO.
804



52HMX94/62HMX94

SH.NO.

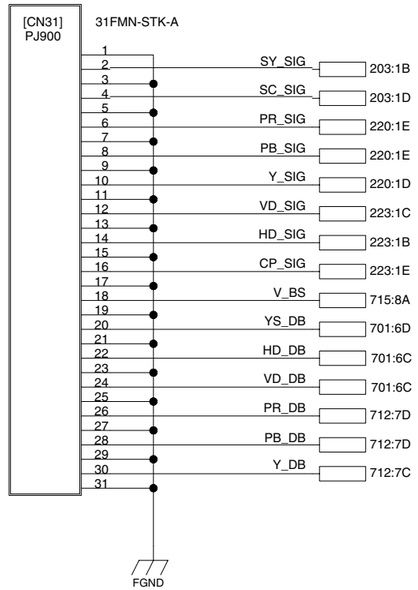
SEINE_PJTV (DDR_SDRAM_DDR_POWER/VREF/VTT) 805



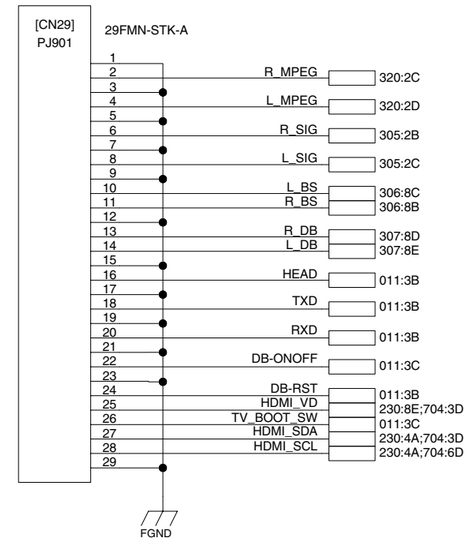
52HMX94/62HMX94
SEINE_PJTV (VCXO)

SH.NO.
950

GDM220000834

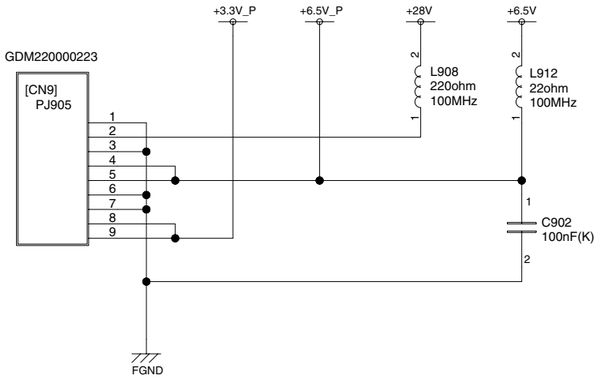


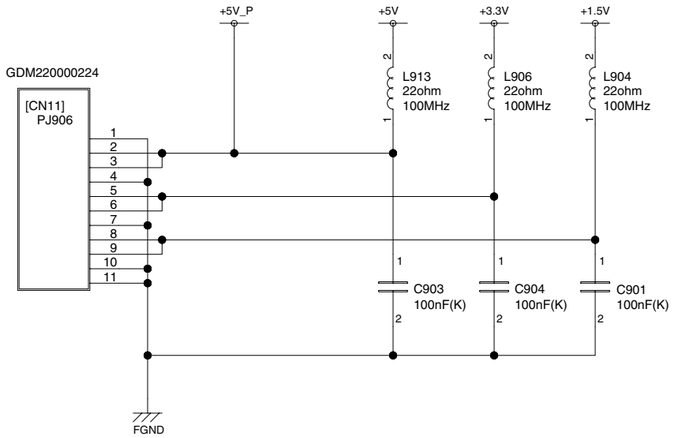
GDM220000833

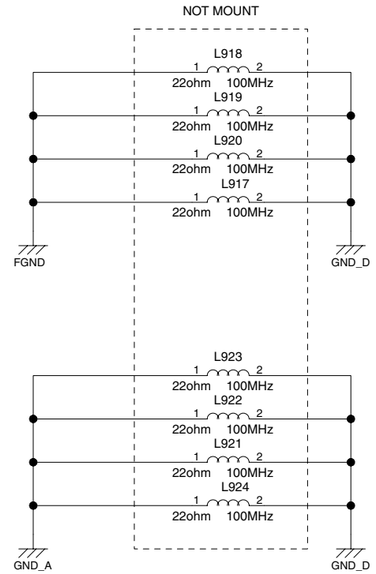


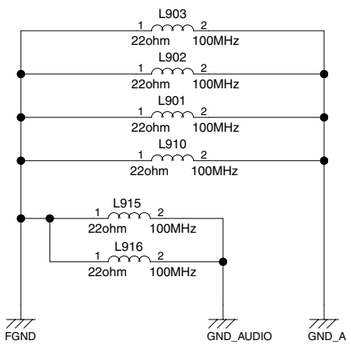
52HMX94/62HMX94
SEINE_PJTV (TERMINAL-SIGNAL_CONNECTOR)

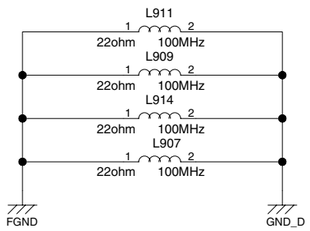
SH.NO.
960

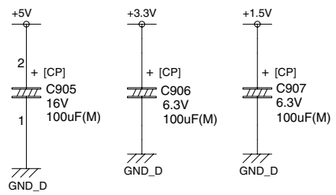






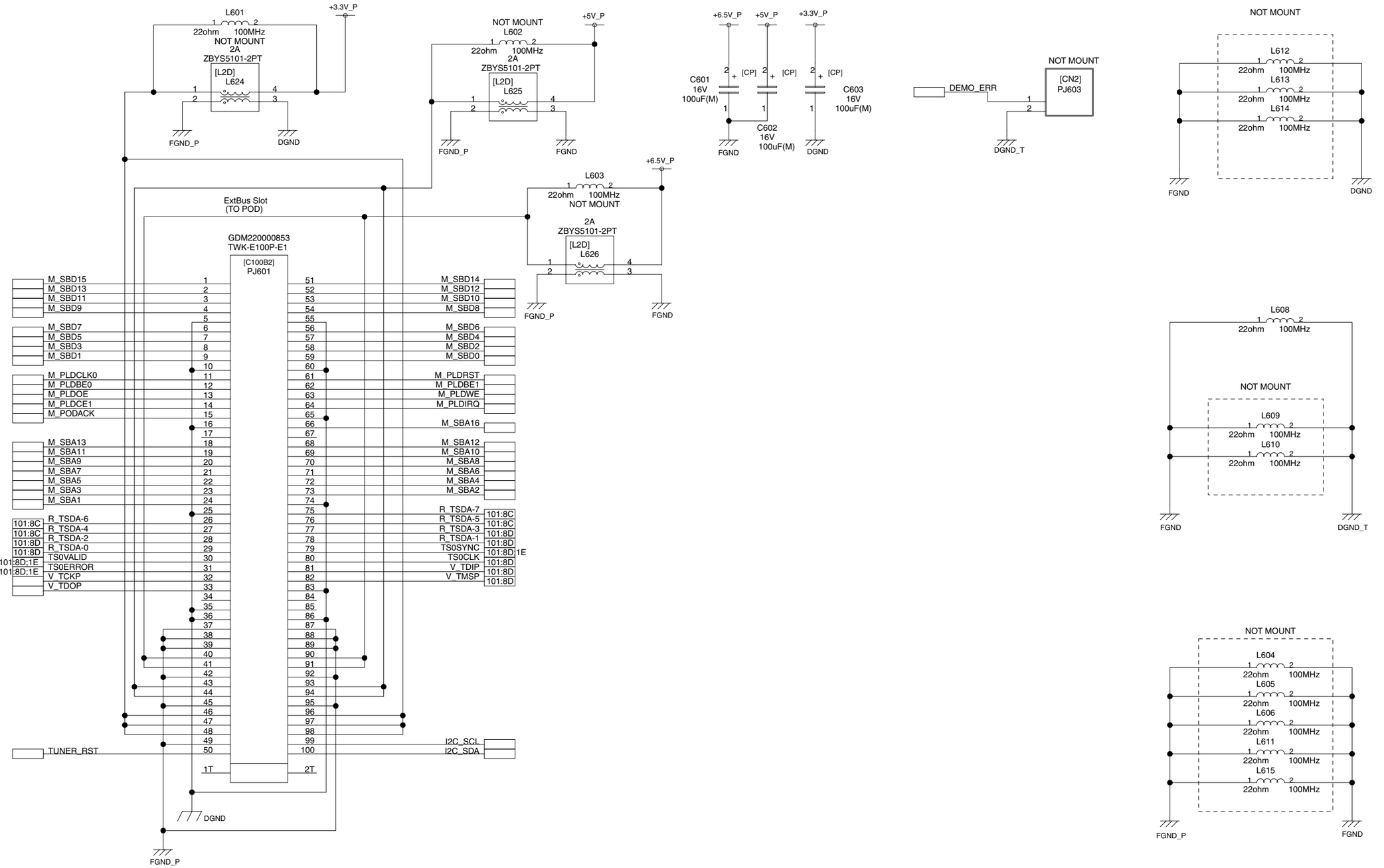




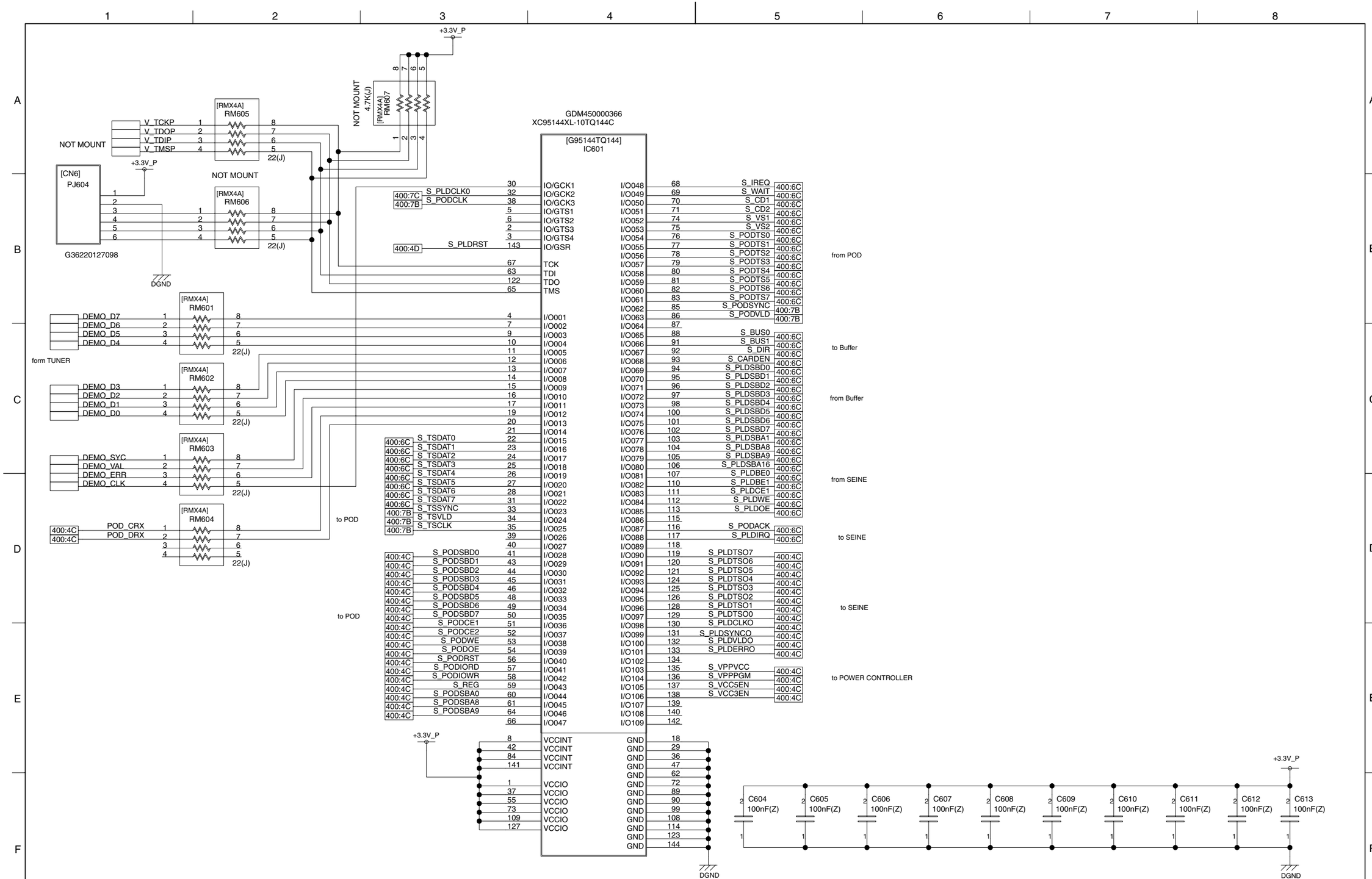


52HMX94/62HMX94
SEINE_PJTV (TERMINAL-POWER_CONNECTOR)

SH.NO.
961



52HMX94/62HMX94 SH.NO.
POD (POD_CONNECTOR) 1


+3.3V_P
NOT MOUNT
4.7K(J)
[RMX4A]
RM607
GDM450000366
XC95144XL-10TQ144C
[G95144TQ144]
IC601
NOT MOUNT
V_TCKP
V_TDOP
V_TDIP
V_TMSP
[RMX4A]
RM605
22(J)
[CN6]
PJ604
G36220127098
DGND
[RMX4A]
RM606
[RMX4A]
RM601
DEMO_D7
DEMO_D6
DEMO_D5
DEMO_D4
form TUNER
[RMX4A]
RM602
DEMO_D3
DEMO_D2
DEMO_D1
DEMO_D0
[RMX4A]
RM603
DEMO_SYC
DEMO_VAL
DEMO_ERR
DEMO_CLK
[RMX4A]
RM604
POD_CRX
POD_DRX
400:4C
to POD
400:7C
400:7B
S_PLDCLK0
S_PODCLK
400:4D
S_PLDRST
IO/GCK1
IO/GCK2
IO/GCK3
IO/GTS1
IO/GTS2
IO/GTS3
IO/GTS4
IO/GSR
TCK
TDI
TDO
TMS
400:6C
S_TSDAT0
S_TSDAT1
S_TSDAT2
S_TSDAT3
S_TSDAT4
S_TSDAT5
S_TSDAT6
S_TSDAT7
S_TSSYNC
400:7B
S_TSVLD
S_TSCLK
S_PODSBD0
S_PODSBD1
S_PODSBD2
S_PODSBD3
S_PODSBD4
S_PODSBD5
S_PODSBD6
S_PODSBD7
S_PODCE1
S_PODCE2
S_PODWE
S_PODOE
S_PODRST
S_PODIORD
S_PODIOWR
S_REG
S_PODSBA0
S_PODSBA8
S_PODSBA9
VCCINT
VCCIO
GND
I/O048
I/O049
I/O050
I/O051
I/O052
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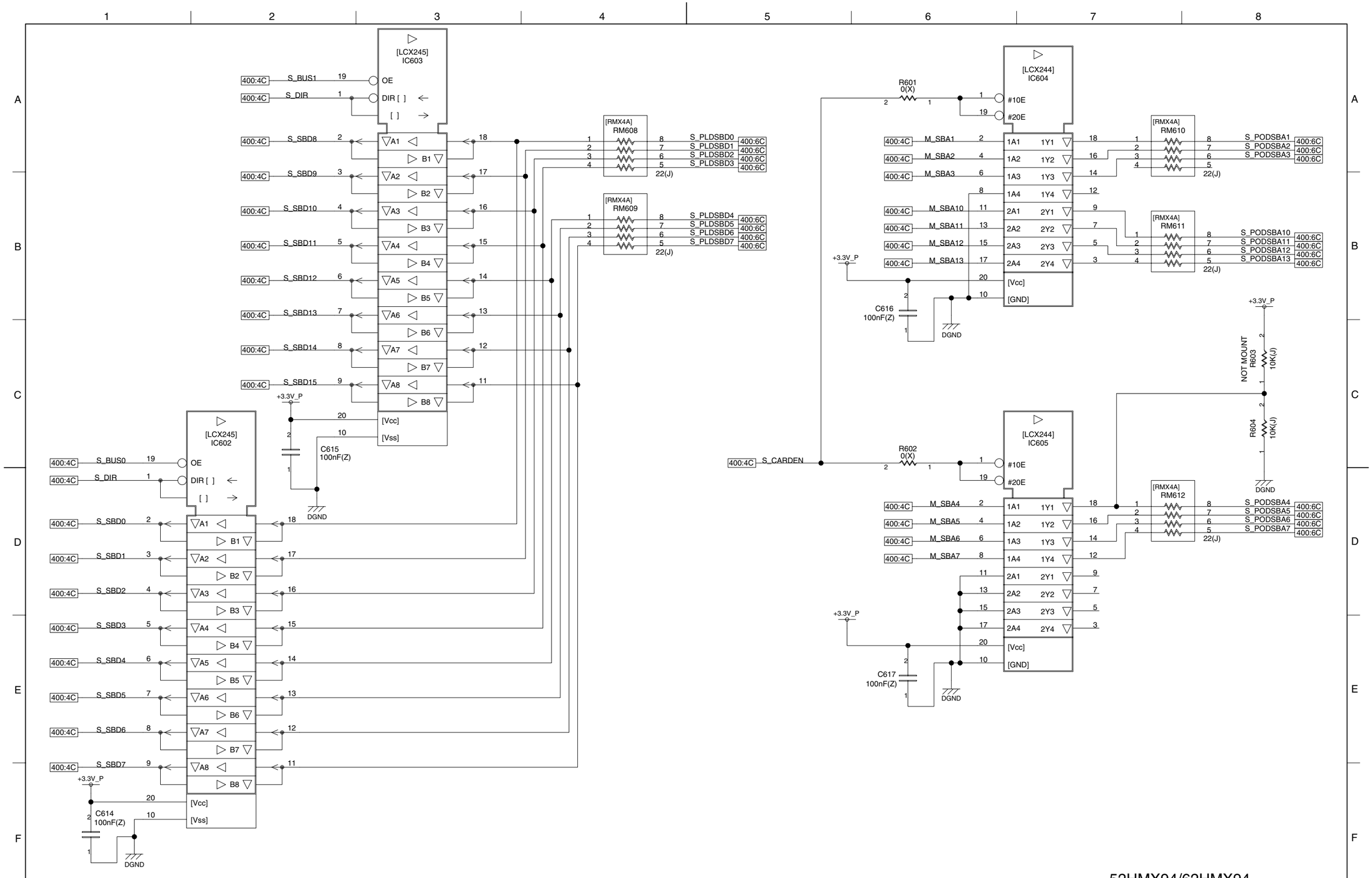
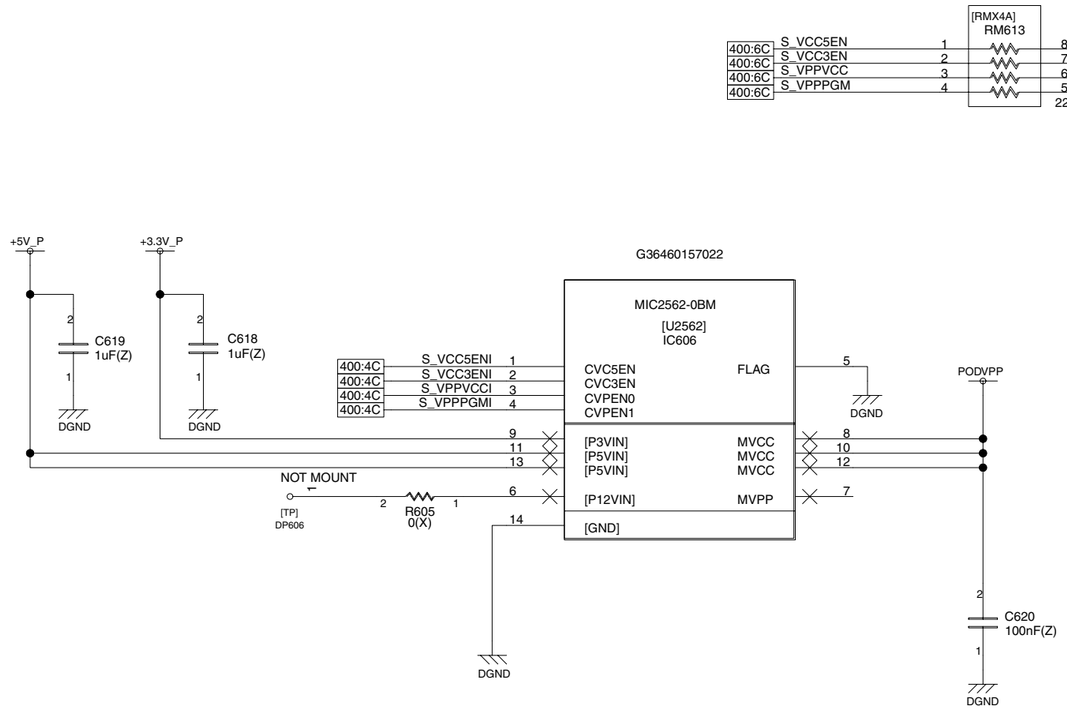
I/O101
I/O102
I/O103
I/O104
I/O105
I/O106
I/O107
I/O108
I/O109
S_IREQ
S_WAIT
S_CD1
S_CD2
S_VS1
S_VS2
S_PODTS0
S_PODTS1
S_PODTS2
S_PODTS3
S_PODTS4
S_PODTS5
S_PODTS6
S_PODTS7
S_PODSYNC
S_PODVLD
S_BUS0
S_BUS1
S_DIR
S_CARDEN
S_PLDSBD0
S_PLDSBD1
S_PLDSBD2
S_PLDSBD3
S_PLDSBD4
S_PLDSBD5
S_PLDSBD6
S_PLDSBD7
S_PLDSBA1
S_PLDSBA8
S_PLDSBA9
S_PLDSBA16
S_PLDBE0
S_PLDBE1
S_PLDCE1
S_PLDWE
S_PLDOE
S_PODACK
S_PLDIRQ
S_PLDTSO7
S_PLDTSO6
S_PLDTSO5
S_PLDTSO4
S_PLDTSO3
S_PLDTSO2
S_PLDTSO1
S_PLDTSO0
S_PLDCLKO
S_PLDSYNCO
S_PLDVLDO
S_PLDERRO
S_VPPVCC
S_VPPPGM
S_VCC5EN
S_VCC3EN
400:6C
400:4C
400:7B
from POD
to Buffer
from Buffer
from SEINE
to SEINE
to SEINE
to POWER CONTROLLER
C604
C605
C606
C607
C608
C609
C610
C611
C612
C613
100nF(Z)
52HMX94/62HMX94
POD (POD_IF-CPLD_XILINK)
SH.NO.
003



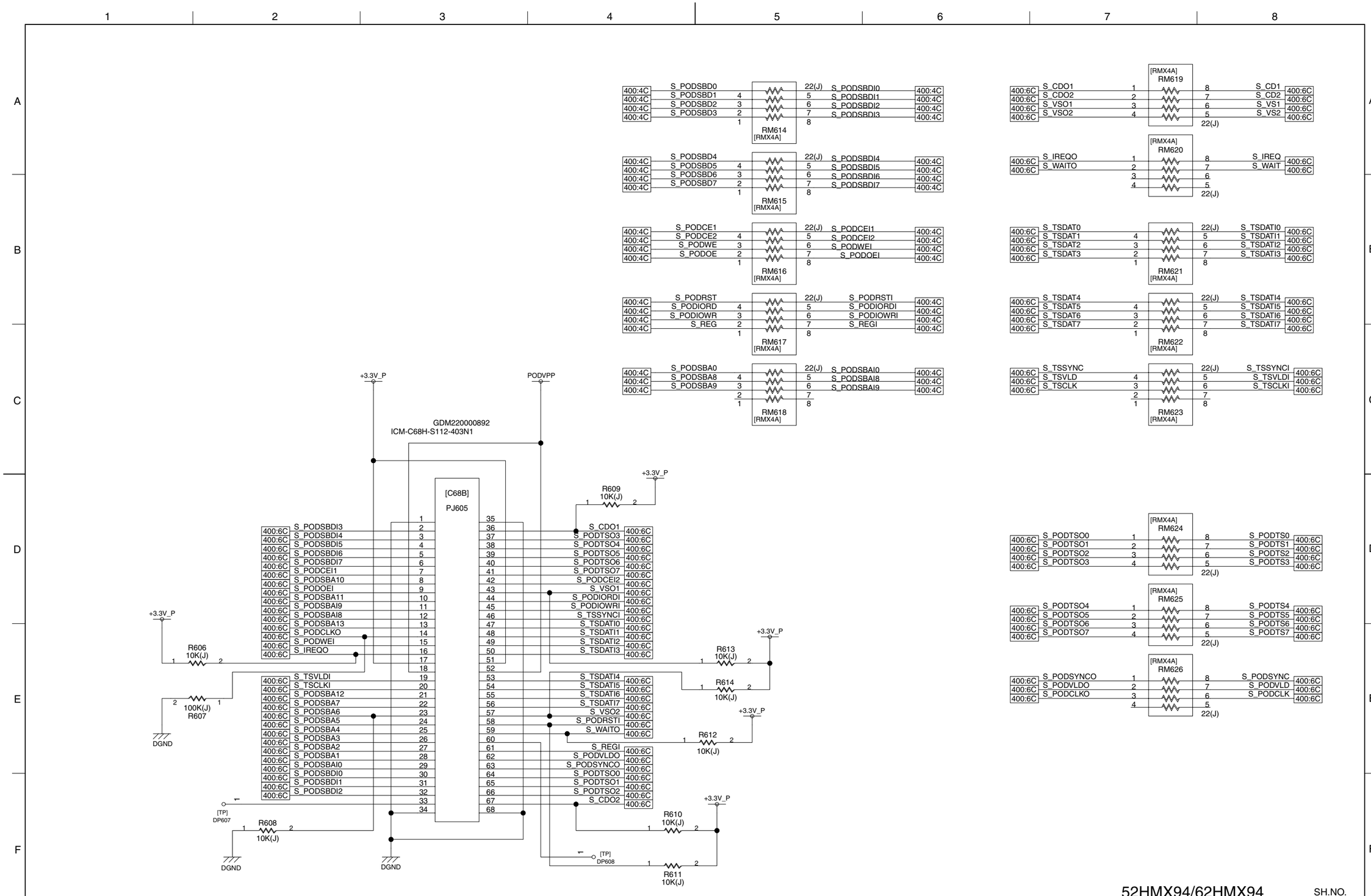
52HMX94/62HMX94
POD (POD_IF-SLOWBUS)

SH.NO.
004



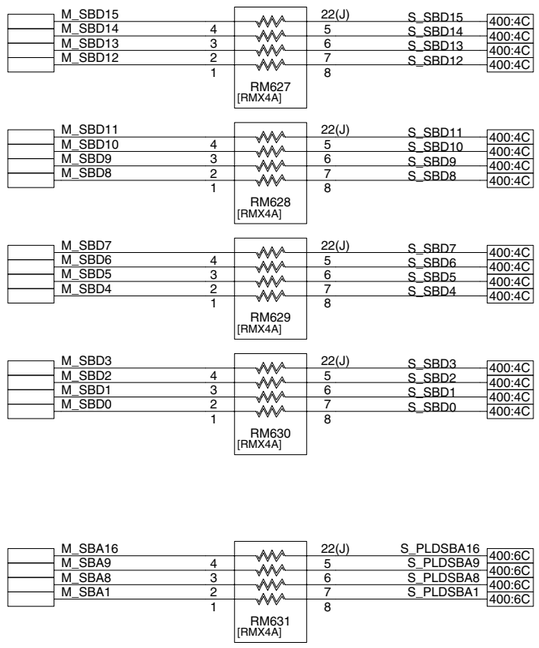
52HMX94/62HMX94
POD (POD_IF-POWER)

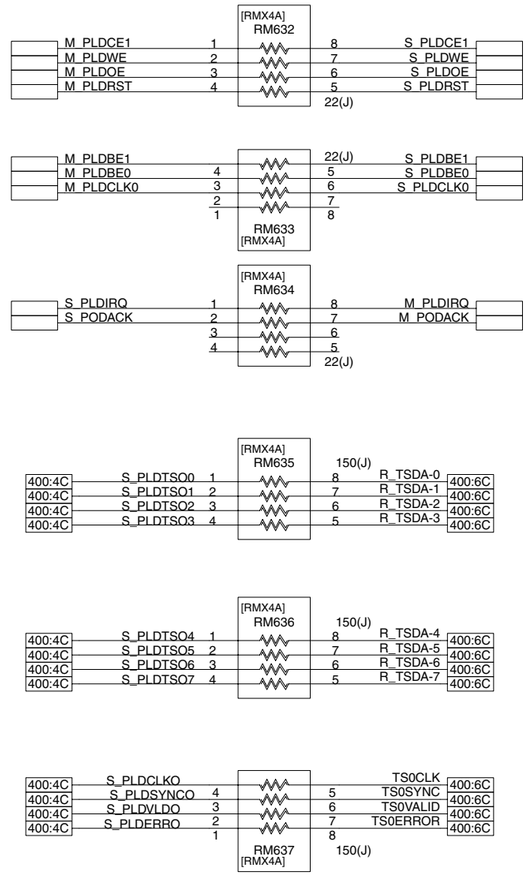
SH.NO.
005



52HMX94/62HMX94
POD (POD_IF)

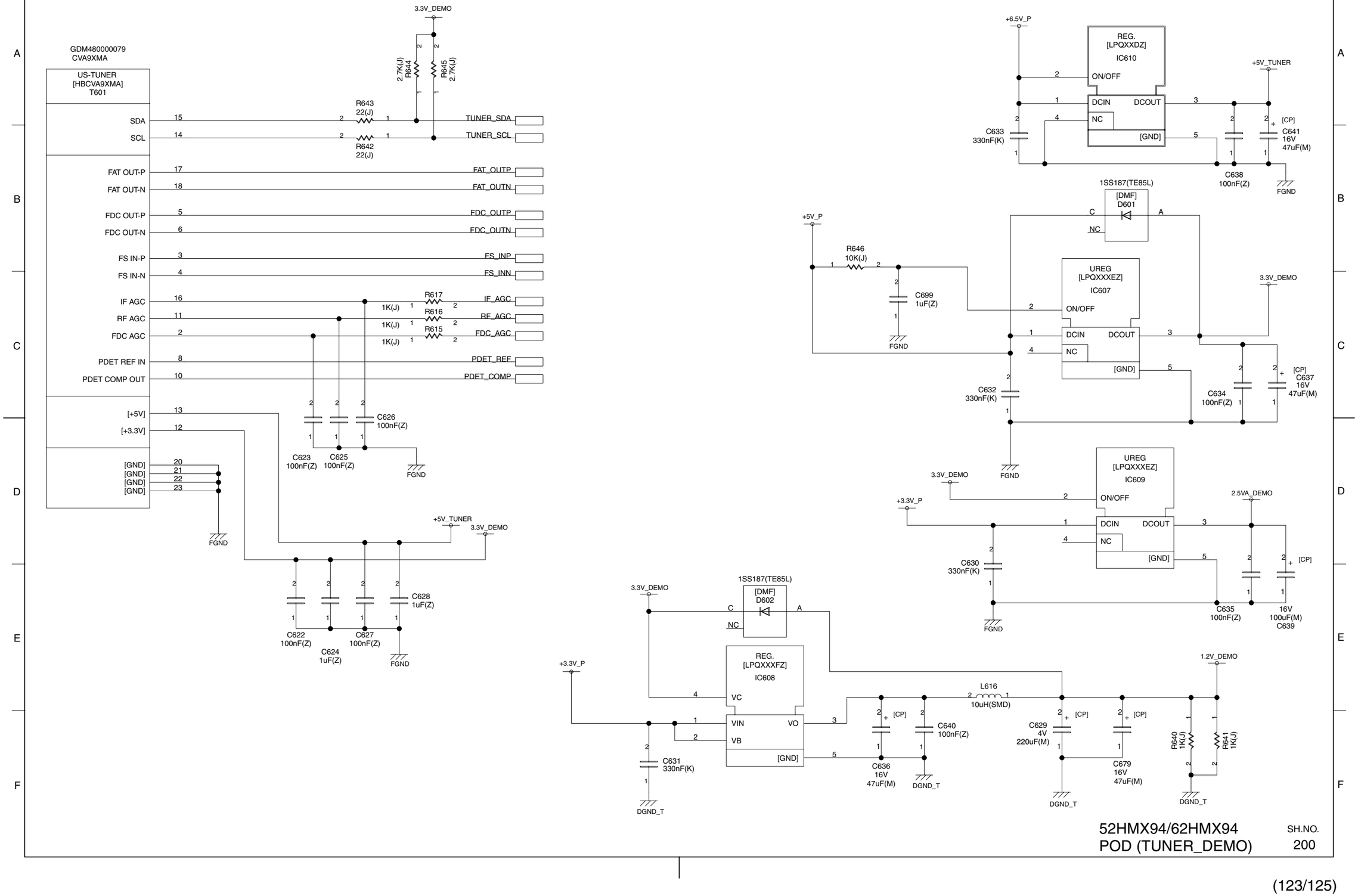
SH.NO.
006

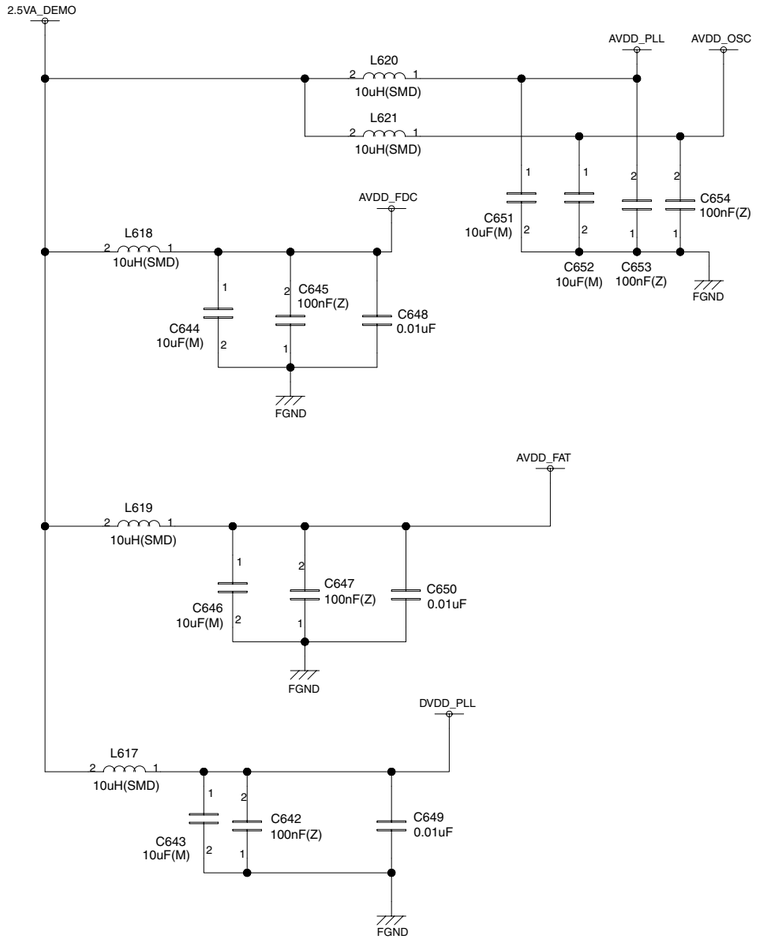


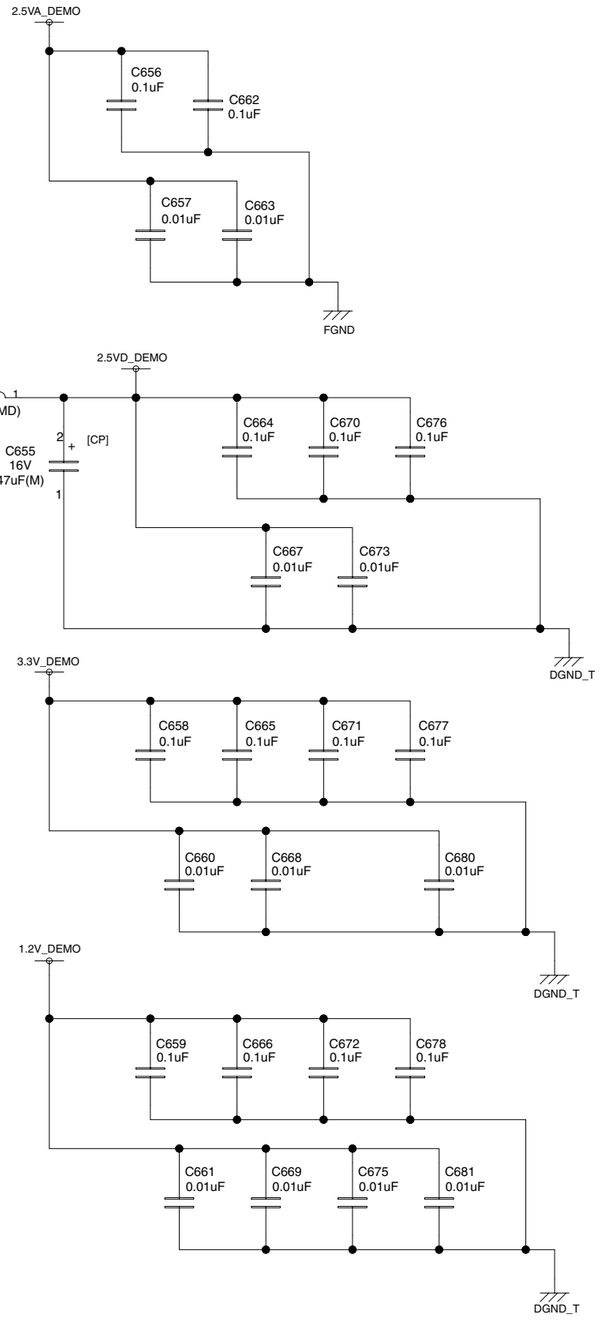


52HMX94/62HMX94
POD (DB_POD_IF)

SH.NO.
008

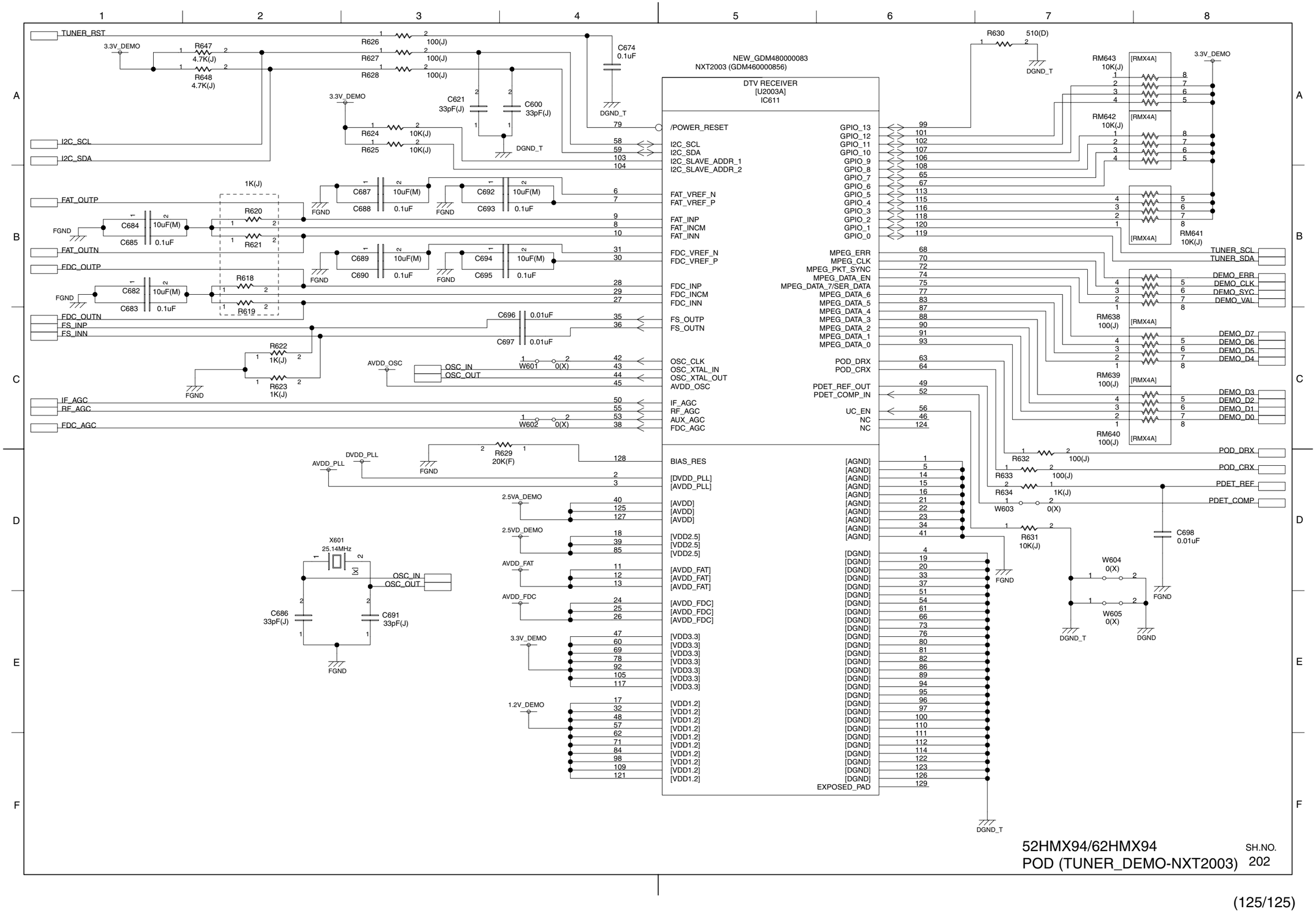

GDM480000079
CVA9XMA
US-TUNER
[HBCVA9XMA]
T601
SDA
SCL
FAT OUT-P
FAT OUT-N
FDC OUT-P
FDC OUT-N
FS IN-P
FS IN-N
IF AGC
RF AGC
FDC AGC
PDET REF IN
PDET COMP OUT
[+5V]
[+3.3V]
[GND]
[GND]
[GND]
[GND]
TUNER_SDA
TUNER_SCL
FAT_OUTP
FAT_OUTN
FDC_OUTP
FDC_OUTN
FS_INP
FS_INN
IF_AGC
RF_AGC
FDC_AGC
PDET_REF
PDET_COMP
3.3V_DEMO
R643 22(J)
R642 22(J)
R644 2.7K(J)
R645 2.7K(J)
R617 1K(J)
R616 1K(J)
R615 1K(J)
C626 100nF(Z)
C623 100nF(Z)
C625 100nF(Z)
FGND
+5V_TUNER
3.3V_DEMO
C628 1uF(Z)
C622 100nF(Z)
C627 100nF(Z)
C624 1uF(Z)
FGND
+6.5V_P
REG.
[LPQXXDZ]
IC610
ON/OFF
DCIN
DCOUT
NC
[GND]
+5V_TUNER
[CP]
C633 330nF(K)
C638 100nF(Z)
C641 16V 47uF(M)
FGND
1SS187(TE85L)
[DMF]
D601
C
A
NC
+5V_P
R646 10K(J)
C699 1uF(Z)
FGND
UREG
[LPQXXXEZ]
IC607
ON/OFF
DCIN
DCOUT
NC
[GND]
3.3V_DEMO
C632 330nF(K)
C634 100nF(Z)
C637 16V 47uF(M)
FGND
UREG
[LPQXXXEZ]
IC609
3.3V_DEMO
+3.3V_P
ON/OFF
DCIN
DCOUT
NC
[GND]
2.5VA_DEMO
C630 330nF(K)
C635 100nF(Z)
C639 16V 100uF(M)
FGND
1SS187(TE85L)
[DMF]
D602
3.3V_DEMO
C
A
NC
REG.
[LPQXXXFZ]
IC608
+3.3V_P
VC
VIN
VO
VB
[GND]
L616 10uH(SMD)
1.2V_DEMO
C631 330nF(K)
C636 16V 47uF(M)
C640 100nF(Z)
C629 4V 220uF(M)
C679 16V 47uF(M)
R640 1K(J)
R641 1K(J)
DGND_T
DGND_T
DGND_T
DGND_T
52HMX94/62HMX94
POD (TUNER_DEMO)
SH.NO.
200





52HMX94/62HMX94
POD (TUNER_DEMO-NXT2003_POWER)

SH.NO. 201


NEW_GDM480000083
NXT2003 (GDM460000856)
DTV RECEIVER
[U2003A]
IC611
/POWER_RESET
I2C_SCL
I2C_SDA
I2C_SLAVE_ADDR_1
I2C_SLAVE_ADDR_2
FAT_VREF_N
FAT_VREF_P
FAT_INP
FAT_INCM
FAT_INN
FDC_VREF_N
FDC_VREF_P
FDC_INP
FDC_INCM
FDC_INN
FS_OUTP
FS_OUTN
OSC_CLK
OSC_XTAL_IN
OSC_XTAL_OUT
AVDD_OSC
IF_AGC
RF_AGC
AUX_AGC
FDC_AGC
BIAS_RES
[DVDD_PLL]
[AVDD_PLL]
[AVDD]
[VDD2.5]
[AVDD_FAT]
[AVDD_FDC]
[VDD3.3]
[VDD1.2]
GPIO_13
GPIO_12
GPIO_11
GPIO_10
GPIO_9
GPIO_8
GPIO_7
GPIO_6
GPIO_5
GPIO_4
GPIO_3
GPIO_2
GPIO_1
GPIO_0
MPEG_ERR
MPEG_CLK
MPEG_PKT_SYNC
MPEG_DATA_EN
MPEG_DATA_7/SER_DATA
MPEG_DATA_6
MPEG_DATA_5
MPEG_DATA_4
MPEG_DATA_3
MPEG_DATA_2
MPEG_DATA_1
MPEG_DATA_0
POD_DRX
POD_CRX
PDET_REF_OUT
PDET_COMP_IN
UC_EN
NC
[AGND]
[DGND]
EXPOSED_PAD
TUNER_RST
I2C_SCL
I2C_SDA
FAT_OUTP
FAT_OUTN
FDC_OUTP
FDC_OUTN
FS_INP
FS_INN
IF_AGC
RF_AGC
FDC_AGC
DVDD_PLL
AVDD_PLL
2.5VA_DEMO
2.5VD_DEMO
AVDD_FAT
AVDD_FDC
3.3V_DEMO
1.2V_DEMO
3.3V_DEMO
DGND_T
FGND
R626 100(J)
R627 100(J)
R628 100(J)
R647 4.7K(J)
R648 4.7K(J)
C674 0.1uF
R624 10K(J)
R625 10K(J)
C621 33pF(J)
C600 33pF(J)
1K(J)
R620
R621
R618
R619
C687 10uF(M)
C688 0.1uF
C692 10uF(M)
C693 0.1uF
C684 10uF(M)
C685 0.1uF
C689 10uF(M)
C690 0.1uF
C694 10uF(M)
C695 0.1uF
C682 10uF(M)
C683 0.1uF
C696 0.01uF
C697 0.01uF
R622 1K(J)
R623 1K(J)
AVDD_OSC
OSC_IN
OSC_OUT
W601 0(X)
W602 0(X)
R629 20K(F)
X601 25.14MHz
C686 33pF(J)
C691 33pF(J)
R630 510(D)
RM643 10K(J)
RM642 10K(J)
RM641 10K(J)
RM638 100(J)
RM639 100(J)
RM640 100(J)
[RMX4A]
TUNER_SCL
TUNER_SDA
DEMO_ERR
DEMO_CLK
DEMO_SYC
DEMO_VAL
DEMO_D7
DEMO_D6
DEMO_D5
DEMO_D4
DEMO_D3
DEMO_D2
DEMO_D1
DEMO_D0
POD_DRX
POD_CRX
PDET_REF
PDET_COMP
R632 100(J)
R633 100(J)
R634 1K(J)
W603 0(X)
R631 10K(J)
C698 0.01uF
W604 0(X)
W605 0(X)
52HMX94/62HMX94
POD (TUNER_DEMO-NXT2003)
SH.NO.
202

(125/125)

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN